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## CENTRAL INTELLIGENCE AGENCY

WASHINGTON, D.C. 20505

16 February 1978

MEMORANDUM FOR:

The Director of Central Intelligence

FROM

John N. McMahon

Deputy Director for Operations

SUBJECT

MILITARY THOUGHT (USSR): The New Program

of Instruction at the Academy i/n M. V. Frunze

1. The enclosed Intelligence Information Special Report is part of a series now in preparation based on the SECRET USSR Ministry of Defense publication Collection of Articles of the Journal "Military Thought". This article describes the new curriculum to be implemented in the academy at the beginning of the 1965/66 academic year. The basic subject remains that of general tactics—and combined arms combat, with more time devoted to modern strategic and operational weapons, equipment, and techniques. Both nuclear and conventional warfare will be studied, the latter having been slighted in previous courses. A new subject will be warfare against enemy means of control and stress is to be placed on automated troop control, cybernetics, and the use of electronic computers. Training methodologies are to be improved and ideological training will retain its importance. This article appeared in Issue No. 2 (75) for 1965.

2. Because the source of this report is extremely sensitive, this document should be handled on a strict need-to-know basis within recipient agencies. For ease of reference, reports from this publication have been assigned the Codeword

John N. McMahon

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## Intelligence Information Special Report

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SUBJECT

MILITARY THOUGHT (USSR): The New Program of Instruction at the Academy i/n M. V. Frunze

SOURCE

Documentary

Summary:

The following report is a translation from Russian of an article which appeared in Issue No. 2 (75) for 1965 of the SECRET USSR Ministry of Defense publication Collection of Articles of the Journal "Military Thought". The author of this article is General-Leytenant V. Petrenko. This article describes the new curriculum to be implemented in the academy at the beginning of the 1965/66 academic year. The basic subject remains that of general tactics and combined-arms combat, with more time devoted to modern strategic and operational weapons, equipment, and techniques. Both nuclear and conventional warfare will be studied, the latter having been slighted in previous courses. new subject will be warfare against enemy means of control and stress is to be placed on automated troop control, cybernetics, and the use of electronic computers. Training methodologies are to be improved and ideological training will retain its End of Summary importance.

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The author also wrote "Combat with Enemy Tactical Means of Nuclear Attack in Offensive Operations" in Issue No. 1 (80) for 1967 and "Certain Problems in Planning Combat Actions Without Using Nuclear Weapons" in Issue No. 3 (82) for 1967

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## The New Program of Instruction at the Academy i/n M. V. Frunze by General-Leytenant V. PETRENKO

The Military Academy i/n M. V. Frunze trains highly qualified, technically competent, and politically mature combined-arms officers. One of the conditions ensuring the successful accomplishment of the tasks of training command personnel is bringing the plan of instruction and the extensive programs into conformity with the requirements of military art. In the postwar years, as a result of the revolutionary transformations which were and are taking place in the different areas of military affairs, these plans and programs have had to be systematically revised, with considerable changes being made in them.

The improvement of programs has taken the path of changing the content of the basic subjects of instruction by eliminating certain obsolete disciplines and adding new ones. Changing the content of the programs automatically required rewriting previously published textbooks and other instructional aids and materials or developing new ones, and restructuring the instructional material resources and methods of teaching. Suffice it to say that, just since 1958 in the Academy, along with the development of comprehensive new programs, the textbooks and instructional aids in operational-tactical subjects have been radically revised three times. This naturally required a great deal of work on the part of the professorial and teaching staff of the academy.

And yet the pace of restructuring and improving the training process lags behind the pace of development of military affairs. Recognizing this and taking into consideration the critical remarks which the Minister of Defense addressed to the academy at a meeting of the Chief Political Directorate in August 1964, the command of the academy made the decision to develop a new curriculum and comprehensive programs, which are expected to be put into effect at the beginning of the 1965/66 academic year. Much has already been done by now.

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We consider it useful to set forth in general form the content of the draft of the new program of operational-tactical training and the changes in the methods of teaching.

The basic subject of instruction in the academy remains, as before, general tactics and the combined-arms battle, which constitute a considerable portion of the program of the academic course in military art. However, it is now planned to devote more attention to the study of armament and military equipment, especially the combat capabilities and methods of operations of those branches of the armed forces and branch arms which primarily determine the outcome of a battle, operation, or war as a whole. In addition, the new program is designed to prevent the oversimplifications of the past in the conditions of employing nuclear weapons, in the organization and conduct of warfare against nuclear means of attack, and the protection of troops from weapons of mass destruction, as well as to sharply raise the level of the technical training of the students.

The most serious defect in the training of command cadres in the leading military academies, including the M. V. Frunze Military Academy, as Minister of Defense Marshal of the Soviet Union R. Ya. MALINOVSKIY pointed out, has been up to now the fact that in the programs of instruction too much time has been devoted to training combined-arms officers in the "ground forces" The new program calls for a major shift in the direction of studying the main branches of the armed forces and branch arms. Specifically this will result in considerably more time being devoted to studying the combat capabilities of the strategic rocket forces, long range aviation, and the air defense forces of the country, as well as the methods of their combat employment. Most important, there will be a sharp increase in the amount of attention devoted to studying the conditions which these branches of the armed forces will create by their actions for the conduct of the battle and operations of the ground forces. It is these conditions that must form the basis of the actions of combined-arms and tank armies, and motorized rifle and tank divisions, especially at the very beginning of a war. this above all that will distinguish the new program of instruction from the previous ones.

In the area of studying the ground forces, it is planned to devote more attention to armament and the combat capabilities and

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methods of employing rocket troops, air defense forces, front aviation, airborne troops, and new artillery, armor, engineer, and other equipment.

Recognition of the decisive role of strategic forces and means in military actions must inevitably lead to a considerable change in the overall direction of the program of operational-tactical training. The basic idea behind our former programs was that the combined-arms battle is the only means of defeating the enemy and achieving victory over him. The organized use of infantry, tanks, and artillery, and all-around support of their actions, were central to the art of conducting the battle and operation. The pattern of armed combat has been that tactical success consistently develops into operational success, and operational into strategic. It was on the basis of these tenets, which were correct in their time, that the training process was built.

Under conditions of a missile/nuclear war the situation is totally different. Now, as can be foreseen, strategic success is achieved primarily by employing strategic means of destruction, thereby creating favorable conditions for achieving success in an operation and combined-arms battle by ground forces. And success in the operations of ground forces will be achieved directly through the use of nuclear and other operational-tactical means of destruction, frequently even without the participation of combined-arms large units.

Hence, in the new program the course in operational art will be expanded and the necessary attention devoted to the study of individual principles of military strategy. Accordingly, whereas up to now questions of operational art included the use of combined-arms large units in an operation, and control or support of their actions by the operational command, in the new program, in the area of operational art, the major emphasis will be on questions of the combat employment of operational-tactical means of destruction and the exploitation of their results by combined-arms large units, as well as the results of strategic nuclear and air strikes.

This, of course, does not at all mean that less attention will be paid to questions of using combined-arms large units and units, as well as conventional means of warfare in operations. In

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the new program, more attention than before is devoted to the employment of operational and tactical airborne landing forces, moving troops from the interior of the country into the area of combat actions under conditions where war has already begun, committing them to an engagement or battle from the march, etc.

Thus, the student, in studying the forces and means of a combined-arms battle and the tactics of units and large units, will have to have an accurate picture of the methods of strategic and operational actions and a good knowledge of the capabilities of the operational and strategic means of combat.

It is planned to study, comprehensively and in depth, the conditions which will develop as a result of the first nuclear strikes by both sides. Clearly insufficient attention has been devoted to this important question up to now. And these strikes, delivered by all combat-ready strategic and operational-tactical means of delivery, both by us and by the enemy, will undoubtedly involve the bulk of the nuclear weapons stockpiled by the beginning of war. As a result of such mass employment of nuclear weapons by both sides, a very complex situation will arise, which cannot possibly be created at exercises or under training-ground conditions. The initial nuclear strike will lead to a drastic change not only in the composition, forces, and capabilities of the groupings of forces of both sides, but also in the physical-geographic conditions in the theaters of military operations.

A major defect in the training of students up to now has been that during the conduct of studies the conditions of the employment of nuclear weapons have been oversimplified. The new program, therefore, will stress the study of methods of quickly analyzing reconnaissance data, comprehensively evaluating targets to be destroyed by nuclear weapons, and performing calculations affecting the choice of the necessary yield of nuclear warheads, the type of burst, and the time of delivery of the strike. In addition, it is planned to study in greater depth questions of monitoring the results of the employment of nuclear weapons against various enemy targets, as well as of the use of nuclear weapons at night.

Warfare against enemy means of nuclear attack is the main content of combat actions and one of the most important problems

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of modern military art. It is planned to make questions relating to this important problem the basis of the operational-tactical training of students, and this will be reflected in the new program. We are also taking into consideration the fact that our probable enemies are saturating their troops more and more with means of nuclear attack and standardizing their artillery systems, adapting them for the use of both conventional and nuclear warheads. In view of this fact we plan to include in the program not only general principles, but also methods of warfare against operational and tactical nuclear means, and questions of organizing and conducting reconnaissance against nuclear installations and destroying them immediately. In the process, the students will study the conduct of warfare against means of nuclear attack with both existing and prospective means of destruction, including very low-yield nuclear weapons.

Another important element in the new program will be the question of protecting troops and rear installations from means of mass destruction. The study of them will constitute an entire special course of instruction, in which principal attention will be focused on steps to prevent massive losses of troops, and on the work of commanders; staffs, and services to preserve personnel and equipment from destruction by nuclear weapons. Measures to eliminate the aftereffects of an enemy nuclear and chemical attack will also be studied in greater depth. One of the most important topics will be the methods of restoring the combat effectiveness of troops, which up to now have not been studied in sufficiently specific terms. The same applies to questions of forecasting the radiation situation, as well as to the organization and conduct of radiation, chemical, and bacteriological reconnaissance. In order to eliminate as many oversimplifications as possible in the areas of protection against means of mass destruction, the new program calls for the study of primarily specific measures.

A new subject will be introduced for the students -- warfare against enemy means of control in a battle and operation. Here the main attention will be devoted to studying the structure of systems to control troops, missiles, aviation, and artillery at the operational and tactical levels of the armies of the main capitalist countries, and knowing how to evaluate these systems correctly, find the vulnerable spots in them, and determine the methods and means of disrupting them quickly. In line with this,

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more time is allotted to studying the equipment used in warfare against enemy radioelectronic means.

The new program also provides more time for the study of questions of airlifting troops, especially during combat actions, and time has also been allotted to measures of organizing and conducting warfare against enemy sabotage and reconnaissance activity. More attention will be paid to independent actions by our subunits and units in the enemy rear.

Included as an independent subject in the program are the questions of automation of troop control, cybernetics in military affairs, and the employment of stationary electronic computers. The students of the academy will study the principles of the automation of control processes, the operating principles and the capabilities of electronic computers, and they will learn in practice to prepare initial data for the solution of computational problems on computers and to utilize the results obtained in the control of troops.

Considerably more time has been allotted to technical training of the students than in former programs. The basis of this portion of the instruction is the requirement that a combined-arms commander under modern conditions must be thoroughly familiar with the armament and combat equipment not only of combined-arms units and large units, but of all the branches of the armed forces with whom the ground forces will be cooperating during a battle and operation. The students of the academy must study most thoroughly and comprehensively nuclear weapons, the equipment of chemical troops, missiles and artillery, equipment of the air forces and air defense, armor and motor transport, equipment of engineer troops, communications, the armament and equipment of tactical and operational reconnaissance, radioelectronic armament, staff equipment, and the equipment of rear services units and facilities. Technical training in the new program will rightfully occupy one of the leading places among all the disciplines.

In the new program a great deal of attention is given over, as before, to the methodological training of the students. A special course in methods provides the students with an understanding of the laws of the instructional process, the principles, methods, and forms of training and education, the

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principles of planning and organizing the combat and political training of officers, staffs, and troops, as well as a mastery of the principles of the methodology of operational training to a sufficient extent. In the area of methodology training for students, the most attention is given to the methodology of tactical training. Here emphasis is placed on the methodology of training troops in combat actions under the complex conditions of missile/nuclear war with the presence of extensive zones of destruction and radiation. A characteristic feature of the methodology training of the students is its many-sidedness, resulting from the large number of particular methodologies necessary in the training of subunits and units of the various branch arms.

In developing the new program we are continually taking account of the specifics of reconnaissance training of students of the academy. In particular, it is planned to train all students in the organization and conduct of reconnaissance as combined-arms commanders and staff officers. In addition, some of them are being trained as reconnaissance specialists. As a result, the course in reconnaissance training has been considerably expanded in the new program, with more attention being devoted to the practical study of the technical means of conducting radio and radiotechnical, artillery, engineer, radiation, chemical, and bacteriological reconnaissance. central feature in reconnaissance training must be training in the organization and conduct of continuous reconnaissance against means of nuclear attack. The new program, as before, provides for in-depth study by the students of the foreign armies of the major capitalist countries, the organization of their troops, armament and equipment, their methods of conducting combat actions, etc.

From what has been said it is obvious that the training process in the academy will be directed mainly toward training the students for combat actions in a nuclear war. At the same time, it is also planned to train them for combat actions without the use of nuclear and chemical weapons by the two sides.

Here the main attention is devoted to studying the capabilities of combined-arms units and large units, rocket troops, aviation, and artillery to destroy an enemy using only conventional (non-nuclear) armament, methods of establishing a

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decisive superiority over the enemy in forces and means on main axes and maintaining it throughout the entire battle and operation, and also methods of organizing and conducting combat actions by troops without the use of nuclear weapons by the two sides. All these questions are included in the new program. The program also takes account of the fact that combat actions using only conventional means of warfare are carried out under the constant threat of the use of nuclear and chemical weapons by the enemy, with the possibility of a non-nuclear conflict escalating into a nuclear one. Hence, the students will study questions connected with maintaining constant readiness on the part of troops to go over to actions under conditions of nuclear war, and readiness for the immediate employment of nuclear and chemical weapons (on receiving the appropriate command in response to the use of this weapon by the enemy).

It should be taken into account that the questions of organizing and conducting combat actions by troops using only conventional weapons have, as a matter of fact, in recent years been consigned to oblivion because we were concerned solely with working out the problems of nuclear war. As a result the academy too at the present time still does not have at its disposal standard textbooks and materials on this topic. But theoretical work of this type is already being worked out and, with the publication of the new program, the professorial and teaching staff and the students of the academy will receive it.

This is the basic content of the new program of instruction being worked out at the M. V. Frunze Military Academy. The program differs from previous ones not only in content, but also in its sequence of study and methods of teaching. For instance, the study of tactics is begun only after gaining a clear idea of the essence and nature of armed combat and the operation, after familiarization with the capabilities of strategic and operational means of destruction, and with the methods of strategic and operational actions, as well as the conditions under which a combined-arms battle will proceed after the first massed nuclear strikes by the warring sides. As can be seen, a completely different sequence of training for the students is planned than the one that existed before. For example, for an in-depth study of the questions of strategy and operational art, the new program provides for a special introductory course, which may possibly take up the greater part of the first year of

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training. At the same time the students will study the fundamentals of scientific communism, the history of military art, and general disciplines.

In our opinion, such a sequence of instruction is the right way to actualize the instructions of the Minister of Defense on deeper study of the main branches of the armed forces. Indeed, a student having a clear picture of the nature of a future war, the role of the branches of the armed forces and branch arms in armed combat, the aftereffects of the initial massed nuclear strikes by the two sides, and the conditions under which combat actions by ground forces will begin, and having studied the basic means of destruction and military equipment, will undoubtedly master tactics more quickly and thoroughly.

We are also planning to make substantial changes in the methodology of teaching tactics itself. Specifically, we consider obsolete and undesirable the presently existing sequence of studying it, based on a sharp division of independent courses: a course in combat actions by a regiment in all its aspects, and the same course in combat actions by a division. The combat actions of a regiment, it goes without saying, differ greatly from the combat actions of a division, particularly in tasks, scale, art of armament, etc. But a whole series of questions on regimental and division themes are alike in principle, and it seems to us desirable to study them together. This also requires the appropriate methodology for conducting the studies. example, in the course of working out a problem on the combat actions of a division, students should be switched, when necessary, from the role of division commander to the role of commander of a first-echelon regiment operating on the main axis, then to that of commander of a regiment allocated to a forward detachment or located in the second echelon, etc. Regiment problems should also be worked out by casting students, when necessary, in the role of division commander.

This, of course, in no way excludes the working out of separate independent problems for a regiment or division. In our opinion, one or two such problems are sufficient for each of the basic types of battle.

As we have already said, massed employment of nuclear and chemical weapons and other modern means of warfare by higher

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levels -- an army or front -- will have a great effect on the actions of a motorized rifle or tank regiment and division. Therefore, in working out tactical problems it is necessary to take fuller account of the operational situation. These are best worked out on the basis (background) of already prepared problems for an army operation, problems which take account of the use in the army zone of army and front means of warfare, and even of a portion of the strategic means -- medium-range missiles, long range aviation, air defense forces of the country, etc. To conduct division or regiment studies with the students, from a given army problem one can take any division or regiment whose actions in the situation produced best correspond to the instructional goals.

This sequence of carrying out regiment and division tasks was also provided for to some degree in the existing program and it fully proved its worth. In this way the unity of the constituent parts of Soviet military art is stressed directly in the instructional process, and the essence of the tasks being accomplished by combined arms units and large units during an army operation is understood more thoroughly. The students see visually, in all their fullness, the role and place of units and large units in a modern operation and the interconnection of tactics and operational art. They study them not in isolation, but as a unified whole.

We would like to dwell on one other important question in the area of the methodology of teaching -- the performance of calculations during the organization of a battle and operation. The experience of exercises has shown that, to make the most advantageous decision, a combined-arms commander and his staff must first perform many different calculations, analyze their results, and take into consideration the possible types of retaliatory actions by the enemy. These calculations are a necessary precondition of every decision on the battle and operation; without them, successful control of troops is impossible. Therefore, all the operational-tactical training of students is based on these calculations. In the academy the opinion that there is supposedly some special tactical and operational preparedness for generals and officers -- separate from the knowledge of diverse modern technology, mathematics, physics, electronics, and chemistry -- has been rejected. An essential part of the modern operational-tactical preparedness of

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students is precisely their all-around technical knowledge.

The increased number and complexity of modern operational-tactical and engineer-technical calculations to be performed in support of successful troop control in a battle and operation require making more and more use of the data of such sciences as mathematics, physics, and cybernetics, as well as the use of calculating equipment. In addition, we must perfect the existing methods of studying the many-sided processes and phenomena that characterize modern combat actions, and introduce new ones. To help solve operational-tactical problems, methods of modeling, consecutive analysis, statistics, etc., are even now being used widely and successfully in the academy. But their use in the training process has as its purpose not the replacing of methods (relevant to modern conditions) that have developed historically and proved their value in practice, but of supplementing and improving them. At the present time, for example, most teachers and students are well aware of the role of mathematical methods in troop control and use them, though admittedly so far not as extensively or skilfully as they should. The problem, therefore, is to master more quickly the necessary mathematical equipment for this. Of course, the task of making a sound decision on combat actions now or in the immediate future will hardly be so mathematized that it can be accomplished merely with the aid of calculating equipment, without calling on the commander with his thoughts, knowledge, and intuition based on experience and creative thinking. Therefore, in training students we continue to require not only that they perform calculations and comprehensively analyze the results, but also that they compare them with the data of battles or operations conducted in the last war, with the data of postwar exercises, as well as with existing theoretical propositions.

Thus, the basis of the conclusions drawn from gaining a clear idea of the task, assessing the situation, and the decisions themselves on the battle and operation, are the objective data derived by employing analytical and statistical methods of studying operations. However, these methods alone are still not enough for a full assessment of impending combat actions, since they make it possible to solve problems concerned mainly with only the initial situation or some single episode taken during a battle or operation. The task is for students to be able to forecast scientifically the entire course of combat

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actions, for which it is necessary, after making a decision on a battle or operation, to play out several possible variants of their development, proceeding on the basis of our actions and the probable actions of the enemy. For this it is essential that the students master modern mathematical methods of studying operations, especially the methodology of modeling a battle and operation, and that they also learn to use the modern equipment which considerably speeds up the performance of calculations: graphs, tables, nomograms, calculating machines, and lastly the electronic computer, for example, the URAL-4.

In conclusion, we would note that social sciences hold an important place in the training process of the academy. We have not attempted in this article to explain the content of the new program of social sciences, which also differs from previous programs. We would merely point out that in the academy such subjects as the history of the Communist Party of the Soviet Union, Marxist-Leninist philosophy, political economy, and principles of scientific communism are taught. A course in party-political work is also given. Under modern conditions officer personnel have a greater desire than ever for the thorough study of Marxist-Leninist teachings, which form the scientific basis of the policies of the Communist Party of the Soviet Union and the theoretical foundation of its practical activity, including activity in the military area. The teaching of the social sciences, as before, has as its purpose the fostering in the students of a scientific world outlook, communist conviction, a sense of proletarian internationalism and socialist patriotism, unlimited devotion to the homeland, and readiness to defend it with one's life if necessary.

The creation of the new program of instruction, developed for all subjects on a high scientific level, and its thorough mastery by the students, will enable them in their role of combined-arms commanders exercising one-man command to carry out each day the propagation of the great ideas of communism, to educate their subordinates in a spirit of loyalty and devotion to the Communist Party of the Soviet Union and the Soviet government, to maintain the constant, high combat readiness of their troops, as well as to competently organize combat actions, and continuously and firmly control troops under the complex conditions of a combat situation.

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