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CENTRAL INTELLIGENCE AGENCY
WASHINGTON, D.C. 20505

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30 January 1974

MEMORANDUM FOR: The Director of Central Intelligence

SUBJECT : MILITARY THOUGHT (USSR): The Training of
Officers of the National Air Defense Forces

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 examines training exercises for officers of the Air Defense Forces of the Country and makes proposals for improving them. The author criticizes command-post exercises and makes a case for smaller, more frequent air defense exercises. He notes a trend toward stereotyped training and stresses the need for variety and realism in exercises. This article appeared in Issue No. 3 (88) for 1969.

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.

[Redacted Signature]

David H. Blee
Acting Deputy Director for Operations

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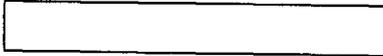
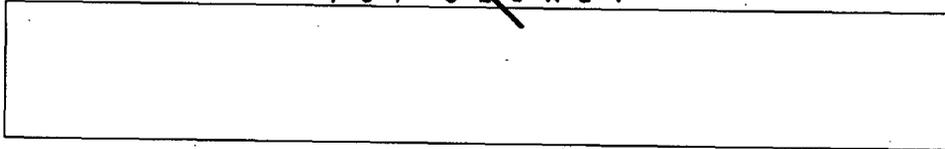
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~~T-O-P S-E-C-R-E-T~~**Intelligence Information Special Report**

COUNTRY USSR

DATE OF INFO. Late 1969

 DATE 30 January 1974

SUBJECT

**MILITARY THOUGHT (USSR): Operational Training
Based on the Operational Training Experience
of the Air Defense Forces of the Country**

SOURCE Documentary

Summary:

The following report is a translation from Russian of an article which appeared in Issue No.3 (88) for 1969 of the SECRET USSR Ministry of Defense publication Collection of Articles of the Journal "Military Thought". The author of this article is Colonel G. Yefimov. This article examines training exercises for officers of the Air Defense Forces of the Country and makes proposals for improving them. The author criticizes command-post exercises and makes a case for smaller, more frequent air defense exercises. He notes a trend toward stereotyped training and stresses the need for variety and realism in exercises.

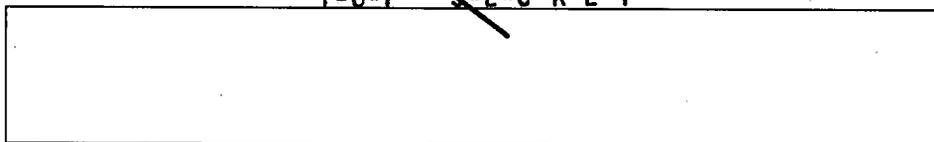
End of SummaryComment:

Col. Yefimov wrote an article entitled "The Role of Cities in Armed Combat", Military Thought, No. 3 for 1971, the RESTRICTED version. Military Thought has been published by the USSR Ministry of Defense in three versions in the past -- TOP SECRET, SECRET, and RESTRICTED. There is no information as to whether or not the TOP SECRET version continues to be published. The SECRET version is published three times annually and is distributed down to the level of division commander.

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~~T-O-P S-E-C-R-E-T~~Operational TrainingBased on the Operational Training Experience of the
Air Defense Forces of the Country

by

Colonel G. Yefimov

Under modern conditions, in order to successfully repel an enemy air attack, it is essential to improve constantly the theoretical knowledge and practical skills of the generals and senior officers of the Air Defense Forces of the Country relating to the control of subordinate large units and units. Operational war games and command-staff training exercises have an important role in accomplishing this, and in recent years there has been a steadily increasing number of them. By analyzing and generalizing the experience gained in these games and training exercises, we have arrived at a large number of conclusions and recommendations for the further improvement of the operational and combat training of the Air Defense Forces of the Country.

We would like to acquaint our readers with some of these conclusions in this article.

Operational war games in the Air Defense Forces of the Country, depending on the training objectives, the problems presented, and the personnel participating, are conducted as either command exercises or command-staff exercises. They are commonly single-level or two-level exercises.

Deputy commanders, the chief-of-staff, and the commanders and the chiefs of the arms and services are usually called upon to participate in a single-level command war game of a formation of the Air Defense of the Country. Occasionally, only the command personnel of the large units of a district (army) participate in this type of game. In

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the former case, it is more convenient to conduct the game at the formation command post, and in the latter case, at the command post of one of the large units. This method enables the director of the game to personally observe and evaluate the work of all the participants without the aid of umpires.

As a rule, a war game is not conducted according to real time but in operational segments--according to hypothetical situations. Thus, it may take several hours, and two to three hypothetical situations may be used, to work out the repelling of an air attack by enemy aviation lasting 30 to 40 minutes. This provides an opportunity to observe several players (in the exact same role) and to arrive at the most advantageous solutions. Usually each participant in a war game has a specific role. However, in a number of cases, several, or even all, of the players may play a given role. War game rules permit assigning any participant to any essential post, even one in a different arm (pilots -- as surface-to-air missile crewmen, and vice versa). This last factor is of particular importance because of the special nature of service in the Air Defense Forces of the Country, where each unit has a completely different purpose and completely different combat equipment. Consequently, it is not difficult to imagine how much a commander of a surface-to-air missile brigade or of a fighter-aviation regiment will have to learn when he is assigned to the post of commander or chief-of-staff of a large unit (to the staff of a formation of Air Defense of the Country), which has surface-to-air missile troops, fighter aviation, and also units of radiotechnical troops communications units, etc.

A command war game usually has the objective of teaching or improving the trainees' ability to appraise the situation, to make or clarify a decision, to assign the troops their tasks, and to work out in detail practicable plans and problems of operational cooperation. Since only a limited number of the more important problems are worked out during this type of game, its preparation and conduct do not ordinarily require much time.

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However, the number of command war games conducted in recent years has unfortunately been considerably reduced. Command-staff war games are replacing them. In doing so, the difficulties involved in their conduct are not always taken into consideration. Indeed, in order to create an air situation instructive to all the categories of officers, generals, and staffs called upon to participate in a command-staff war game, each large unit must be allocated a separate plotting board and plot the air situation on it. Moreover, although the working positions are remotely reminiscent of the working conditions at a command post, it is impossible to equip them for use by all the participants in the game. Consequently, the trainees assemble in one hall and the air situation is plotted on one plotting board. Clearly it is impossible to show all the essential data on that plotting board. The situation presented turns out to be simplified and incomplete. At best, it provides only for the making of a decision on a formation scale. Commanders of large units and officers of the staffs called upon to participate in the game (who must command surface-to-air missile troops and fighter aviation in battle and also organize cooperation between them) do not have at their disposal the detailed information on the situation necessary for their work. Moreover, since the formation commander has before him a large audience, he has no opportunity to make a careful study of the capabilities, personalities, and strength of character of the commanders of the large units.

The question as to when and where the commander will actually get to know and teach his immediate subordinates automatically arises. We believe that the form most suitable for such training and familiarization may be precisely the command war game, and not the command-staff war game. Similar results can also be achieved in training exercises for officers, but they are conducted even more rarely than command war games. Operational training experience indicates it is advisable to study all new, insufficiently clear, and complex problems, first in seminars or training exercises for officers and subsequently--in war games and command-staff exercises. This ensures the observance of a logical sequence of training and transition from the simple to the complex.

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The above considerations permit us to conclude that command-staff war games (especially two-level ones) cannot and should not replace command war games, which it is advisable to conduct annually in all formations. This is all the more true since to prepare and conduct this type of game requires much less manpower, means, and time than a command-staff war game.

However, war games, despite their many positive aspects, do not constitute a general-purpose form of operational training, since they are not without a number of shortcomings. In particular, during them it is difficult to create a situation that approximates actual combat conditions; the trainees have no opportunity to direct their subordinate forces; technical means are not used, etc. Occasionally, in an effort to eliminate these shortcomings, two-level operational war games are conducted using the command-staff exercise method, with the participating commanders and staffs stationed at their own command posts (many of them hundreds of kilometers away from the formation command post). With this, all the advantages of the war game (the nearness of the director and others) are inevitably lost and it is transformed, essentially, into a command-staff exercise. Consequently, if the established training objectives cannot be achieved using the operational war game method, apparently it is better to reject it and conduct a command-staff exercise.

Operational command-staff exercises in the Air Defense Forces of the Country have especially great importance because the situation created during them can maximally approximate actual combat conditions. This is precisely why these exercises constitute the most instructive and effective method of training generals and officers and also of bringing cohesiveness to staffs and combat teams of command posts. The command-staff exercise constitutes the best form of determining and checking the actual level of combat readiness of operational formations.

Operational training experience demonstrates that, in the Air Defense Forces of the Country, maximum effect with a comparatively limited expenditure of forces and means is obtained when command-staff exercises are conducted as multi-level ones. Then the closest approximation of actual conditions is achieved: the air and ground situations are

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transmitted through all levels, and in the exact same way orders are transmitted to the persons who are to carry them out; In doing so, decisions are based on the actual results of the work of the radiotechnical troops, and operational-tactical calculations are tested by the actual operations of fighter aviation and surface-to-air missile troops.

In contrast to a war game, the command-staff exercise is conducted at regular command posts with communications means, according to real time, and continuously (hour after hour). It is true that operational segments may be used, but it is desirable to have as few of them as possible. Usually during command-staff exercises, units (subunits) are called on to represent their own troops and the enemy; this sharply increases their instructiveness and permits the drawing of concrete, practical conclusions on all of the problems being worked out. During a command-staff exercise, each general and officer, as a rule, assumes his regular post and works together with his subordinates.

When determining the composition of the staffs that take part in a command-staff exercise, it is not always advisable to call upon all of the large units of the army (district) to participate, for to conduct such an exercise would be very complicated, since it is not usually possible to represent the enemy by actual aircraft flights coming on all axes and having sufficient density. Nor does it seem possible to use jamming of the appropriate intensity on all axes; the shortage of skilled umpires will inevitably make itself felt, and the players will solve many problems without the necessary supervision.

If, for example, only two-thirds of the large units are called upon to participate in a command-staff exercise, from the troops and staffs not called upon it is possible to form a qualified team of umpires and to fully man the technical elements of the directing staff. At the same time, it is advisable to call upon all deputy commanders of the formation, commanders and chiefs of arms, and also the staff of the formation, to participate in the exercise, which, practically speaking, cannot be done if all the large units participate.

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The duration of operational command-staff exercises in recent years has not ordinarily exceeded 48 to 72 hours. During this period the staffs were able to work out the planning documents, and afterward to play out the repelling of the first strike, the rebuilding of disrupted air defense systems, and the repelling of one or two mass enemy air strikes. This duration and structure of an exercise, on the whole, conformed to combat conditions during operations using nuclear weapons. However, during the working out of a variant consisting of a war which began and continued for some time using only conventional means of destruction and then escalated into a nuclear war, it turned out that 48 to 72 hours is no longer enough. It is extremely difficult to master all the essential training problems in this amount of time without simplifying them.

Clearly, under these circumstances it is advisable to increase the duration of the command-staff training exercise to 96 hours. Then it is possible to more fully work out air defense forces operations under all conditions of waging warfare. Right now this is especially important, since the period of non-nuclear operations, and special features of it that affect the Air Defense Forces of the Country, have not yet been studied in depth. Moreover, during an exercise of this duration it is easier to create realistic conditions for working out the problems of cooperation with air defense in the field during an offensive operation when a gap occurs between the zones covered by the Air Defense Troops of the front and the Air Defense Forces of the Country.

The results of operational war games and command-staff exercises in the Air Defense Forces of the Country to a considerable degree depend on the thoroughness of their advance preparation. An especially large amount of time is spent in creating an instructive air situation. In doing so, it is necessary: to determine the composition of the attack and support groups; to work out the plan for using jamming; to lay out routes; and to determine the altitude and speed of each aircraft or individual group for the duration of the entire flight. All this requires long and painstaking work with the participation of a large number of officers. Then time is needed to assign tasks to those who are to carry them out and, when actual flights are involved--to coordinate them with the appropriate departments. Up to two to three weeks is usually spent on

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this. Therefore, all hypothetical situations involving enemy operations must be worked out completely and in detail in the period of preparation of the exercise, since it usually is not possible to prepare them while the exercise is in progress.

During war games and command-staff exercises conducted in the air defense district (army), occasionally the commander of the forces is both the director and the participating commander. Experience testifies to the undesirability of such a combination. Also, caution should be exercised in appointing commanders and chiefs of arms and services to act as assistants of the director, since this deprives them of the opportunity for training in the execution of the duties of their own positions. Under these conditions, it is more advisable to appoint the first deputy as the formation commander (for the game); as for the remaining deputies (commanders and chiefs of arms and services), it is preferable that they play their own roles. The experience of games and exercises demonstrates that the director is usually able to cope with their preparation and conduct without assistants for the arms and services by relying on the directing staff and the umpires. Of course, in a number of cases it may prove advisable to include one of the chiefs of the arms in the directing personnel, and when this is done his deputy will fill the corresponding post. However, this should not be considered as a rule.

Preparation for an operational command-staff exercise entails working out a large quantity of varied training materials. Without considering them in detail, we will dwell only on how to avoid stereotypes when working out the concept and on how to plan correctly the operations of enemy aircraft. Both these highly important problems frequently are not solved in the best possible way. The problem is that there is an objective predisposition to use stereotypes in the fact that the formations (large units) of the Air Defense of the Country have permanent boundaries of responsibility and a permanent grouping of forces and means, which for years at a time do not undergo substantial changes. Therefore, if one is guided by the principle-- "teach the troops what is needed in war"--it would seem logical when conducting command-staff exercises and war games not to introduce artificial changes in the outlines of the boundaries or in the grouping of forces and means. In

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turn, the enemy for any given formation (large unit) usually is also a fully-defined air force grouping based on an actual airfield network and assigned to deliver strikes on specific fixed targets. Thus, even here there was built in a causal factor which can lead to the use of stereotypes.

In a number of staffs, under the pressure of these circumstances, command-staff exercises and war games are worked out year after year according to the same pattern, and during them some of the players use the exact same working maps, changing only the dates. It goes without saying that there is a loss of instructiveness, the operational thinking of generals and senior officers is not developed, and they do not learn to appraise a complex situation and make decisions. How can this be? Given the objective factors indicated, how can we add life to the exercise, introduce into it desirable new elements, stimulate creative thinking, and at the same time work out training problems under conditions that maximally approximate combat conditions?

As regards the boundaries of the zones of responsibility of the formations, the fact that not all large units (units) are called upon to participate in a given command-staff exercise or war game, and also abrupt changes in the military-political situation, may bring about changes in them. In connection with this, to a certain extent the boundaries of the large units and their fighting strength can also be changed. This is all the more justified, since even under the actual conditions of a situation there may be partial changes, both planned and unplanned, in the fighting strength and the grouping of a formation (large unit): individual units leave for the firing range, are re-armed with new equipment, or may be transferred to another formation (large unit) to increase the covering forces for some axes or areas, etc. Moreover, the forces and means of the air defense of the ground forces will be deployed and on combat duty within the boundaries of the formations of the Air Defense Forces of the Country, and may be transferred to new areas at any time; this, naturally, will necessitate appropriate changes in the grouping or tasks of the units (large units) of the Air Defense Forces of the Country.

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It is also not impossible that on the eve of war the task of some of the large units or formations of the Air Defense Forces of the Country will abruptly change, for example, in connection with the deployment (concentration) of a new grouping of ground (airborne) forces or aircraft within their boundaries. When accomplishing large-scale regroupings of forces, the task of covering a specific main road or a convoy during sea passage may become the primary task of several air defense large units. It is obvious that the indicated changes may introduce a number of new and, at times, quite interesting features into the situation.

When combat operations begin there will be even more important changes. Thus, within a brief period of time several airfields and individual subunits of radiotechnical troops will be destroyed, surface-to-air missile units and fighter aviation will suffer losses, etc. As a result of these losses, the radar coverage and combat capabilities of the air defense large units (units) will sharply change. Redeployment of fighter aviation not provided for in the plans will take place. These changes, apparently, should be worked out during command-staff exercises and war games, only not in the overall plan (as is sometimes done, indicating total losses for a formation or large unit in percentages) but specifically for each subunit, unit, and large unit. It is advisable to transmit these data to the lower echelons so that the staffs obtain their information on losses by the established procedure. In determining the losses, it is recommended to proceed from the assumption that the enemy will not seek merely to destroy the largest possible quantity of forces and means, but those which occupy key positions, are playing a decisive role at the given stage, and whose destruction would sharply reduce the combat capabilities of the large units and units.

As regards the nature of the operations of enemy aircraft, it is hardly necessary to demonstrate the possibility and advisability of altering it in each air strike. Nevertheless, a mode of aviation operations peculiar only to nuclear warfare, when there will be an almost simultaneous air strike by small groups (and even individual aircraft) on practically all important targets, often predominates during the working out process. During the non-nuclear period, clearly, the air situation will be somewhat different. Specifically, while in a nuclear war a

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single delivery aircraft (escorted by covering groups) is practically enough to destroy a target, when conventional munitions are used tens and possibly even hundreds of bombers will be required to even partially neutralize it. The limited possibilities for simultaneous destruction of many targets and the engagement of a large number of aircraft for the strikes, inevitably will lead to the use of a variety of forms and methods of conducting such air strikes. It is not impossible that during a specific stage of the non-nuclear period the enemy will select a total of two or three targets from among several dozen of the most important targets covered by an air defense formation and will attempt to break through the air defense system on a narrow front along one or several axes. The enemy will also make extensive use of: the entire altitude range from the lowest possible to the highest possible altitude; jamming; maneuvering in course, altitude and speed; allocation of targets with a change of combat formations, etc. This mix of tactical methods of enemy aviation, obviously, should be employed and worked out during all command-staff exercises and war games.

Finally, we come to methods of representing the enemy, which we would like to discuss at length. There are two known ways: by using actual aircraft and by simulation. The actual representation of enemy aircraft provides practical training for generals and officers and tests the combat readiness of the staffs and troops under conditions that maximally approximate combat conditions. As a rule, the use of actual aircraft to represent the enemy, even under simplified conditions (in regard to intensity of jamming, altitudes, speeds, and quantity of targets), lays bare the most substantial shortcomings and inadequacies in the organization of the air defense system. In doing so, it is not advisable to disperse the aircraft assigned to represent the enemy among several axes and strikes (as is occasionally done in some formations) but to use them in mass. This makes it possible to represent not only strike groups but covering groups as well, to build an appropriate battle formation, to use different altitudes, and to increase the intensity of the jamming.

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However, the use of actual aircraft to represent the enemy takes a considerable quantity of forces and means and requires advance coordination of the plan for their use. Actual aircraft, moreover, cannot begin their flight from hostile territory. There are also many restrictions associated with ensuring safety (especially on flights at low altitudes and at maximum speeds). For this reason, in command-staff exercises, representation of the enemy by actual aircraft is only done in part. In individual cases and during war games, as a rule, the enemy is represented only by simulation without flights of actual targets. This latter method is sometimes oversimplified, as when data on the air situation are transmitted to the plotting boards by telephone from adjacent premises or from the intelligence information center (RITs) of the formation. As a result, the control of radiotechnical troops is not worked out, the trainees work under simplified conditions, and such an important component part of the command post of the formation as the intelligence information center does not participate in the process of coordinating all elements of the command post. Therefore, in war games it is clearly more advisable to effect the transmission of data on the enemy from the intelligence information centers of the large units, and in command-staff exercises (when the trainees are located at their command posts)--from the command posts of the units and subunits of the radiotechnical troops.

For more detailed working out of the plans and actions of commanders in repelling mass strikes by hostile aircraft, the situation can be portrayed on special charts, without being played out in real operational time. The problem is that since in a war game the commanders of large units are located in premises that have not been adapted for combat work and do not have even a reduced command post team, they are not in a position to consider personally all the problems involved in the control of units and the organization of cooperation in a dynamic air situation. By playing the most instructive moments in the air engagement (battles) according to a chart, the director has the opportunity to work out all the training problems in detail and also to analyze the actions of the players most thoroughly, without haste. The repelling of less intensive air attacks can be played on the plotting board in real time, on the basis of a complete plotting of the targets from the beginning to the end of an air strike. A

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combination of both methods is possible. It is important, however, to take into consideration the training level and work conditions of the trainees, and also the complexity of the situation.

From what has been said, it is obvious that operational training methods in the Air Defense Forces of the Country have many specific features, and that taking them into consideration will contribute to an increase in the quality of training of generals and senior officers.

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