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CENTRAL INTELLIGENCE AGENCY  
WASHINGTON, D.C. 20505

7 December 1977

MEMORANDUM FOR: The Director of Central Intelligence  
FROM : William W. Wells  
Deputy Director for Operations  
SUBJECT : WARSAW PACT JOURNAL: Specialized and  
Operational-Tactical Training of Rocket Troops

1. The enclosed Intelligence Information Special Report is part of a series now in preparation based on articles from a SECRET Soviet publication called Information Collection of the Headquarters and the Technical Committee of the Combined Armed Forces. This article deals with the training of rocket troops in Romania. It gives the time frames for training, and describes the methods and educational aids used to achieve and maintain a high degree of proficiency of the rocket troops. This journal is published by Warsaw Pact Headquarters in Moscow, and it consists of articles by Warsaw Pact officers. This article appeared in Issue No. 1, which was published in 1970.

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

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William W. Wells

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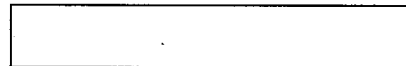
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## Intelligence Information Special Report

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COUNTRY ROMANIA/WARSAW PACT

DATE OF  
INFO. 1970

[Redacted Box]

DATE  
7 December 1977

SUBJECT

WARSAW PACT JOURNAL: Specialized and Operational-Tactical  
Training of Rocket Troops

SOURCE Documentary

Summary:

The following report is a translation from Russian of an article from a SECRET Soviet publication called Information Collection of the Headquarters and the Technical Committee of the Combined Armed Forces. This journal is published by Warsaw Pact Headquarters in Moscow, and it consists of articles by Warsaw Pact officers. This article was written by General-Mayor Ion Popescu. This article deals with the training of rocket troops in Romania. It gives the time frames for training, and describes the methods and educational aids used to achieve and maintain a high degree of proficiency of the rocket troops. This article appeared in Issue No. 1, which was published in 1970.

End of Summary

[Redacted Box] Comment:

Ranks of one-star (general-mayor) and two-star (general-leytenant) general officers are given in Russian for nationals of countries following the Soviet system.

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Specialized and Operational-Tactical  
Training of Rocket Troops

by

General-Major Ion POPESCU  
Commander of Artillery of the Armed Forces of  
the Socialist Republic of Romania

In a modern operation the basic means for employing nuclear weapons is rocket troops. The great range of flight and power of missiles with a nuclear warhead enable rocket troops to successfully wage combat against means of nuclear attack, and destroy groupings of troops and other important enemy targets situated throughout the depth of his operational disposition. In performing these tasks rocket troops play a decisive role in gaining fire superiority over the enemy, and in the successful accomplishment by troops of combat tasks assigned and in achieving the goals of the operation.

The effective accomplishment of these tasks is achieved by constant combat readiness and a high level of field training of missile large units and units, and comprehensive training of commanders and staffs whose duties include the organization, planning, and control of the operations of rocket troops.

As a result of the constant concern of the Communist Party and the government, the Armed Forces of the Socialist Republic of Romania have enjoyed, since the time missile large units and units were first formed, all the necessary conditions for the training of rocket troops. This has enabled us in the process of combat training to continually improve the forms, methods, and techniques of training personnel. As a result, missile large units and units have scored high marks on tests, and at inspections, tactical exercises, and launchings of combat missiles.

In this article we would like to share our experience in some of the most typical problems of specialized and operational-tactical training of rocket troops of the Armed Forces of the Socialist Republic of Romania.

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Specialized training of officers, military specialists, noncommissioned officers, and subunits is one of the most important types of combat training of missile units and large units.

The principal task of this type of combat training is to study with all personnel the make-up of missiles, assemblies of ground equipment, instruments, instructions, and safety equipment, and to train crews in such a way that every member will actually be able to perform the functional duties assigned to him in the preparation and launching of missiles under any situational conditions.

Direction of the instruction of personnel in specialized training is exercised by commanders and staffs directly responsible for training missile units and subunits subordinate to them.

The diversity and complexity of missile equipment at the disposal of units and large units obliges us to provide specialized training, taking into account the following most important requirements:

- the attainment by officers, military specialists, and noncommissioned officers of excellent results in specialized and methodological training;
- an extensive study by personnel of missile equipment, of the technical instructions for operating it, and of safety equipment, as well as of their functional responsibilities;
- the systematic improvement of the practical skills of personnel for the purpose of maintaining constant high combat readiness among rocket troops.

In view of these requirements, the principal element in achieving good results both in specialized and in operational-tactical training of rocket troops is, in our opinion, personal training of officers, military specialists, and noncommissioned officers.

The presence in missile units of a large number of different specialties makes it necessary to determine the volume of specialized training knowledge for each category of officers, military specialists, and noncommissioned officers. On the one

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hand they must master their own authorized specialty, and on the other hand they must master the volume of corresponding knowledge in all other specialties found in the subordinate subunit.

In addition, for purposes of interchangeability, an officer, noncommissioned officer, or military specialist must master one or two related specialties.

Taking account of all the above requirements, we have developed a program and the corresponding subject matter for training each category of officer, military specialist, and noncommissioned officer.

The training of officers, military specialists, and noncommissioned officers for rocket troops is accomplished by us in two ways: in the training center of the artillery command of the Armed Forces, or directly in the units and subunits.

The training center was established simultaneously with the forming of missile units. It is staffed by thoroughly trained officers and equipped with the necessary training materiel resources. Its basic function is to retrain personnel for the rocket troops, including antitank guided missile subunits, as well as to improve the knowledge of officers of missile units.

Officers, military specialists, and noncommissioned officers chosen to serve in missile units first take retraining courses at the training center. For a comparatively short period of time (six to eight months) they study the missile system and each of them acquires general knowledge and also masters in detail a specialty in the authorized job to which he will be assigned following retraining.

Experience has shown that the training of personnel in courses at the training center within the bounds of narrow specialization (even for military specialists and noncommissioned officers) does not produce any appreciable results, since it does not give the personnel the necessary perspective for a full understanding of the role and tasks of the given specialty within the system of overall work of the unit or large unit, and does not create the conditions for the mastery of a second related specialty. One-sided training also hinders the process of advancing or transferring personnel from one job to another

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depending on the actual requirements of the units and large units.

Officers are usually sent to upgrading courses to acquire knowledge in the handling of new missile equipment or new methods of combat training. Also taking these courses are rocket troop officers who have been named for promotion. On the average, officers, military specialists, and noncommissioned officers take these courses every three to four years, thereby raising their knowledge of specialized training.

In order to achieve the right combination of specialized and tactical training, we are systematically bringing in permanent staff officers of the training center to take part in all the major activities carried out among the troops: tactical exercises, launchings of combat missiles, practical exercises in fire control, and inspections and checks of troops. These measures enable the officers of the training center to become familiar with the troops and the requirements of specialized training, and on the basis of this to improve the programs and the entire training process.

The knowledge of specialized training gained by officers, military specialists, and noncommissioned officers at the training center is augmented in the units, where they acquire experience and methodological skills in teaching personnel and also master related specialties. In the second year of service many of them are already able to work in a second or even a third specialty.

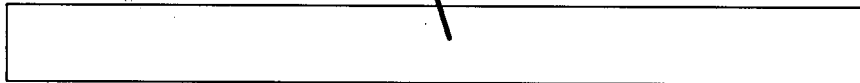
One of the most effective forms of learning for officers, military specialists, and noncommissioned officers is independent study. Experience has shown that with correct planning and well thought out organization, 12 to 14 hours per week may be allotted to the training of personnel. Of these, four to six hours may be used for group study, and the remaining eight hours for independent study.

The guiding basis of independent work is the plan of independent study drawn up by each officer in consideration of his level of training, and approved by his immediate superior.

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Monitoring of the independent work of officers is carried out by their immediate superiors by means of individual and group consultations and discussions, tests on topics studied and subjects being taught, and also on the results of their day-to-day activities.

This form of independent study, in our opinion, is the most advantageous, since the diversity of jobs, as well as the various levels of training of the officers, make it impossible for staffs of units to plan self-study in an organized manner by groups. At the same time it successfully combines the training of officers with the training of subunits.

Independent study by military specialists and noncommissioned officers is organized, guided, and carried out by the most experienced officers, and for certain problems by well-trained noncommissioned officers.

Thus the proper combination of the forms and methods of training personnel at a training center and in units has enabled us in a relatively short period of time to provide all-round training (including methods training) and thereby lay the groundwork for good specialized training of soldiers and subunits as a whole.

As we know, specialized training of missile subunits is primarily technical in nature. Consequently, the selection of a conscript contingent for rocket troops based on its general and technical training is of great significance.

It is perfectly obvious that before the call-up it is essential to determine the requirements of missile units for personnel according to speciality, taking into account the general nature of the training and the education of the conscripts. This will make it possible to correctly solve the problem of staffing units with the necessary contingent of men.

In this regard, measures taken by the party and government leadership to improve general and technical training in the country play a useful role. This provides the best conditions both for the socioeconomic development of the country and for training personnel of units and large units in a shorter amount of time.



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In allocating young soldiers among subunits and assigning them to jobs, consideration is given to their personal inclinations and to their previous training. In the case of draft replacements assigned to take over jobs in basic specialties, a check is conducted in advance of their general training and ability, while among soldiers assigned to jobs as operators in antitank guided missile subunits their psychomotor abilities are also checked, using special tests and the appropriate equipment.

In organizing and conducting combat training we proceed on the assumption that missile units and large units must constantly be ready to perform combat tasks. For this purpose specialized training of enlisted personnel is conducted by us in our own organic subunits, with the exception of theoretical studies for which personnel are formed into groups according to specialty on the scale of a battery or battalion.

In the training of soldiers of the first cycle of study, we try from the very beginning to find the right combination between mastery of theoretical problems and practical methods of work with materiel. This is essential in order for young soldiers to learn as quickly as possible to perform their functional duties within their subunits. Theoretical problems during this period are studied only to the extent necessary for a correct understanding of operational methods, security precautions, etc. Afterwards, enlisted personnel begin practical work with materiel, performing at first only the simplest jobs. Subsequently, by alternating theoretical and practical training, the knowledge and skills of the soldiers are increased.

During the practical exercises considerable attention is devoted to the use of visual aids (diagrams, posters, cutaway parts) and especially simulation means, moving models, and electrified stands, which make it possible to gain a greater mastery of the problems being studied, both theoretical and practical.

The experience of conducting practical exercises in specialized training under these conditions shows that three to four months after the beginning of the training cycle the great majority of the subunits have attained excellent results in the integrated practical exercises. This makes it possible to conduct

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battery and battalion exercises under proper conditions.

The practical skills in specialized training acquired by the soldiers are improved in integrated practical exercises and training practices. If during the practical exercises or training practices certain crew members or crews as a whole experience difficulties or make mistakes while performing individual operations, then it is recommended that the procedure or operation be repeated.

Special attention should be devoted to maintaining practical skills already acquired. The opinion is sometimes heard that systematic drills for certain specialists (permanent or enlisted personnel) are not essential. Experience dictates that after a three to four week lapse personnel begin to lose acquired work skills both from the point of view of accuracy and in the time required to carry out operations. It therefore remains our opinion that any gap between two successive training programs in the practical work of personnel in fulfilling the tasks of the missile training course must not exceed ten days.

Problems of planning are no less important in specialized training. Practice shows that the presence in missile large units and units of a large number of specialties considerably complicates the planning of combat training in the staffs of a brigade or of battalions. We have therefore given considerable leeway in this matter to the subunit commanders. Staffs of large units and units determine in their plans only the basic tasks of combat training according to periods of time (for a brigade--by stages, for a battalion--by months), as well as the sequence of use of training materiel resources. Staffs of brigades and battalions in their plans for combat training establish the time at which all specialists may simultaneously switch to joint practical work. This is especially important for the conduct of integrated training periods and tactical exercises.

Properly organized and timely monitoring is of great importance in raising the level of specialized training, as is assistance given to unit and subunit commanders. A particular role in this matter is played by monitoring groups, created in large units and units, as well as by the organic monitoring department of the artillery command of the Armed Forces.

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At all tactical exercises, integrated practical exercises, inspections, and training practices, the monitoring groups assess the training of units and subunits according to their academic subjects. During combat training they assist commanders and staffs in instructing personnel in specialized training by holding demonstrations and methods classes. In addition, the monitoring department of the artillery command of the Armed Forces, having a broader range of specialization (including antitank missiles), synthesizes the positive experience of the combat training of rocket troops, develops specialized and methods study aids, works on ways of improving training materiel resources, and provides necessary assistance to artillery staffs of armies in the conduct of exercises and inspections.

Having at its disposal personnel with excellent theoretical and practical training, this organ makes a substantial contribution to the continuous raising of the level of specialized training.

Along with specialized training, operational-tactical training of commanders, staffs, as well as large units, units, and subunits, is of great importance to the rocket troops. In this matter we firmly believe that in addition to purely technical training and performing firing tasks, missile units and large units must undergo operational-tactical training.

Our goal here is the most advantageous combination of specialized training and operational-tactical training, both in the process of training personnel and in the process of instructing units and subunits.

Operational-tactical training, like specialized training, is conducted at the training center and in missile units and large units. In addition, commanders and some staff officers of missile large units and units increase their knowledge of the problems of combat employment of rocket troops at a military academy and at academic upgrading courses for officers.

In large units and units operational-tactical training is conducted mainly by the method of periodic courses of instruction for commanders and staff officers, staff training practices and practical exercises in fire control, command-staff exercises and tactical exercises with troops, as well as by independent work by

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officers.

Training courses for commanders and staff officers are given, as a rule, at the beginning of the training cycle for a period of three or four days. Classes at these courses are held in groups, arranged by job category. In charge of these classes are the immediate commanders. This method of instruction serves to increase the level of the officers' knowledge of the most complex problems of operational-tactical training, on how to achieve a unity of views on special problems, and efficiently perform their functional duties in combat.

In examining problems of organizing and conducting staff training practices and practical exercises in fire control, we have come to the conclusion that these forms of instruction give the best results when conducted jointly in the field and on a combined theme. Such training practices should be held in two or three stages with control subunits brought in, including computer groups. The time allotted for their conduct may be increased up to one class day or even more.

These training practices, in which, in addition to commanders and staff officers, control subunits also take part, are close in nature to tactical exercises. They provide the greatest possible opportunity for officers to improve their practical skills in performing their functional duties, and also improve the teamwork of staffs of large units and units. In addition, control subunits brought in to participate in these training periods undergo the necessary training for the forthcoming tactical exercises.

Command-staff exercises are a highly instructive and effective form of training commanders and staffs. We have come to the conclusion that the best results are obtained at two- and three-stage command-staff exercises with representational troops, as well as by a combination of command-staff exercises and tactical and special exercises. These forms of instruction make it possible to achieve significant results in a short time. They develop operational thinking among the trainees and the ability to quickly analyze the situation, and also contribute to the development among officers of initiative and independence in accomplishing the tasks assigned.

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The training of missile subunits and units in combat operations is carried out at tactical-drill and integrated practical exercises, training practices in fire control, as well as at tactical exercises held both with and without missile launchings.

One of the best forms of providing operational-tactical training for commanders and staffs, as well as training units and subunits for combat operations, is that of tactical exercises. We therefore believe it is necessary to devote particular attention to this type of training.

In preparing tactical exercises we are devoting particular attention to the problem of training the units and large units themselves for the exercises, as well as to training the exercise director and his staff. But since the training of units for exercises is conducted according to the usual rules, we shall not take it upon ourselves to describe it in detail. We feel it necessary to emphasize only one aspect of this matter -- the admission of missile units and large units to the forthcoming exercises.

Experience has shown that the checking of missile units prior to their admittance to tactical exercises should be carried out two to four weeks before the exercises are held. This will make it possible to eliminate shortcomings discovered during the check, and when necessary to conduct a second check. During the check tactical and specialized training are assessed mainly according to the results of the combined actions of subunits. We attach great importance to the training of rocket troops for exercises, especially such units as a missile brigade, a mobile missile technical base, and even a missile battalion.

The experience of the exercises held shows that certain commanders are attempting at exercises to have rocket troops work out only problems of specialized training and fire control. Problems of tactics, and in certain cases of technical support as well, are overlooked. We are vigorously combating such practices and at the same time not permitting the opposite tendencies, namely underestimating specialized and technical problems.

Tactical exercises are one of the basic forms of training missile units for combat operations. They are conducted as a

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rule on combined themes, envisioning the working out of several types of combat operations. The plan for carrying them out includes problems, the solutions to which require combined actions by all specialists, crews, and subunits as a whole. At tactical exercises, therefore, we are trying to place the load on all categories of trainees, under conditions most closely resembling those of an actual situation.

At the same time there are moments during an exercise when the actions of certain specialists do not come to the attention of the officers, and thus the officers do not obtain the practice needed in the performance of their functional duties.

To eliminate this defect we are giving thorough training to umpires who, within the framework of the overall plan of the exercise, will be called upon to play out additional hypothetical situations for the purpose of training all specialists. Also taking part in this will be subunit commanders, who during the exercise direct the operations of all personnel. In addition to the overall plan of the exercise, each commander develops his own individual plan.

In addition to the independent tactical exercises by missile large units and units that we are systematically conducting, considerable attention is being devoted to the conduct of exercises, jointly with combined-arms large units and also with missile technical units.

These exercises afford an excellent opportunity to improve the combat operations of large units and units, as well as to improve the practical skills of commanders and staffs in problems which cannot be fully worked out at independent exercises. These include completion of a march over a long distance, deliveries by rail, deployment in a siting area, organization and maintenance of cooperation with combined-arms large units and missile technical units, missile technical support, crossing of water obstacles, and others.

In plans for operational-tactical training, great attention is devoted to the training of chiefs of artillery of large units and formations and their staffs, as well as of the combined-arms commanders and staffs who are the main organizers and controllers of the combat operations of rocket troops.

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One important task involved in raising the level of combat training of rocket troops is the creation and systematic improvement of training materiel resources. In our missile large units and units considerable work has been done to provide them with everything they need in accordance with the requirements of the training process for all types of combat training. At the present time in each unit a training field is located near the permanent deployment area, which, under the appropriate conditions, makes it possible to conduct integrated practical exercises for launch and technical batteries, perform most of the tasks of the missile training course, and work out certain tactical problems.

Considerable attention is being devoted to supplying training classrooms and special areas with posters, diagrams, models, and simulation means. All this makes the instruction of personnel in specialized training considerably easier, and makes it possible to save on the mileage reserves and prolong the service life of certain machinery and equipment.

In order to improve the training materiel resources in missile large units, units, and educational institutions, as well as in the artillery command staff, at the initiative of party and communist youth organizations, efficiency studies and work on inventions have been developed on a broad scale. The central laboratory of the training center is the organ which synthesizes this work, determines which models of training equipment meet the necessary requirements, and recommends them for use in the process of training personnel.

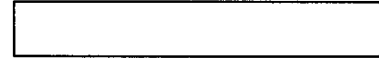
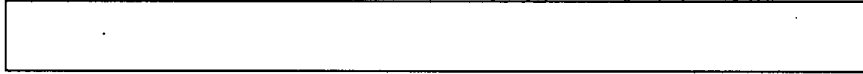
In this article we have examined only the main problems whose solution contributes to raising the quality of specialized and operational-tactical training of rocket troops.

On the basis of experience gained, we are systematically improving the comprehensive training of rocket troops, thus ensuring a high degree of combat readiness on their part so that they may be able to perform the tasks assigned to them at any time.

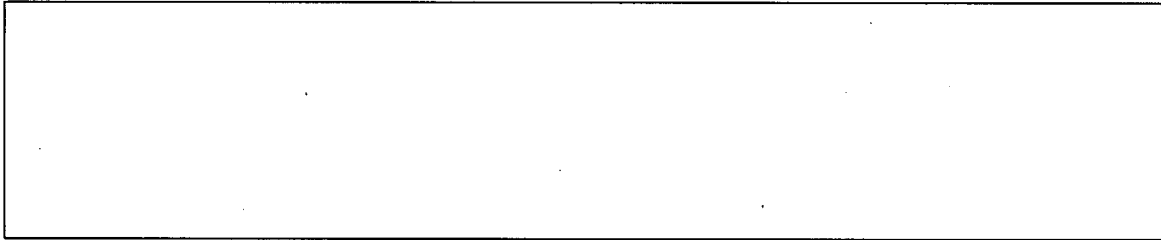
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