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## CENTRAL INTELLIGENCE AGENCY WASHINGTON, D.C. 20505

6 May 1977

MEMORANDUM FOR:

The Director of Central Intelligence

FROM

William W. Wells

Deputy Director for Operations

SUBJECT

MILITARY THOUGHT (USSR): Some Matters of the Employment of Rocket Troops and Artillery in the Antilanding Defense

of a Seacoast

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 touches upon several aspects of the employment of missiles and artillery in a defense by a <u>front</u> against an amphibious landing. The author draws upon the experience of past exercises in describing planning procedures, the use of nuclear and chemical strikes, the types of reconnaissance used, particularly radiotechnical reconnaissance, and the grouping of rocket troops and artillery required for a successful defense. Recommendations also are given for destroying a force which has already landed, and for improving the supply of missiles to the rocket troops. This article appeared in Issue No. 2 (69) for 1963.

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	William W. Wells
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APPROVED FOR RELEASE DATE: DEC 2004

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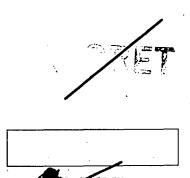
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Intelligence Information Special Report

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COUNTRY USSR

DATE OF NFO.

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SUBJECT

MILITARY THOUGHT (USSR): Some Matters of the Employment of Rocket Troops and Artillery in the Antilanding Defense of a Seacoast

E Documentary

The following report is a translation from Russian of an article which appeared in Issue No. 2 (69) for 1963 of the SECRET USSR Ministry of Defense publication Collection of Articles of the Journal 'Military Thought". The author of this article is Colonel P. Shkarubskiy. This article touches upon several aspects of the employment of missiles and artillery in a defense by a front against an amphibious landing. The author draws upon the experience of past exercises in describing planning procedures, the use of nuclear and chemical strikes, the types of reconnaissance used, particularly radiotechnical reconnaissance, and the grouping of rocket troops and artillery required for a successful defense. Recommendations also are given for destroying a force which has already landed, and for improving the supply of missiles to the rocket troops.

End of Summary

The author also contributed to "Control of the Missile Units of the Ground Forces in Offensive Operations" in Issue No. 2 (63) for 1962

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## Some Matters of the Employment of Rocket Troops and Artillery in the Antilanding Defense of a Seacoast by Colonel P. Shkarubskiy

The antilanding defense of a seacoast will be conducted by a <u>front</u> with decisive objectives oriented toward destroying enemy amphibious landing forces before they are put ashore. As experience gained from exercises shows, this task can be carried out only through the coordinated efforts of the <u>front</u>, the navy, aviation, and strategic means.

The defense of a seacoast usually is conducted on a broad front. Therefore, in view of the enemy's present capabilities for landing amphibious landing forces, it must be built upon the deep echeloning of the battle formations of the troops and the flexible maneuvering of fire and of all forces and means to the threatened axes in order to prevent the landing of enemy landing forces and to destoy them immediately on shore.

With well-organized reconnaissance and all-round support of their firing, the <u>front</u> rocket troops are able to strike very successfully at enemy landing forces both at their basing sites and in sea transit. Particularly effective are nuclear and chemical strikes by rocket troops when landing forces are being transferred from the transports to amphibious landing means and when the latter are moving to the landing areas.

By maneuvering the trajectories of missiles, primarily operational-tactical missiles, the front can quickly deliver powerful nuclear and chemical strikes against enemy landing forces which have landed, with the aim of destroying them in practically the entire zone of defense.

For the rocket troops to be able to carry out their antilanding defense tasks successfully, their actions must be planned thoroughly. The destruction, in cooperation with the navy and aviation, of enemy landing forces with nuclear and chemical weapons as well as with other front means must be the underlying concept in working out an antilanding defense. The front (army) commander must determine precisely the location, the forces to be used, and the type of strike to be delivered against the enemy landing forces. In line with this, the front (army) staff must organize





reconnaissance against the enemy and cooperation among the rocket troops, the fleet, and aviation, while the chief of rocket troops and artillery must plan the fire and maneuvering of the rocket troops and artillery, transmit specific fire tasks to the units, and establish and maintain continuous cooperation with the fleet and aviation.

The absence of such a concept in the decisions of the commanders of the fronts and the armies at one of the recent exercises was one of the reasons why substantial "losses" were not inflicted on the enemy landing forces in sea transit and why he was able to land on the shore. While in sea transit and at the start and after the landing on the shore, the enemy landing forces were hit with individual and grouped nuclear and chemical strikes delivered mainly by army means. At the same time, the front had at its disposal an R-300 missile brigade, a KR-500 cruise missile battalion, and an R-550 missile battalion; by maneuvering trajectories it actually could have delivered massed strikes against the enemy landing forces on practically any landing axis, allocating for this its own and army missile large units.

The experience gained from this exercise shows that individual nuclear strikes delivered against an enemy landing force in sea transit have little effect because of the broad dispersal of ships in the cruising formation of the landing force. It is only with massed nuclear strikes that a decisive blow can be delivered against the landing force and its landing disrupted.

Along with nuclear strikes, chemical weapons can also be employed very effectively against a landing force, particularly before the landing when a considerable part of the landing force personnel are situated in the open. At the same time that the chemical weapons are destroying personnel, they will also contaminate the transport means and combat equipment. This will force the enemy to land in means of protection and will contain his maneuvering. Moreover, it should be taken into consideration that the employment of chemical weapons during this period makes it easier to safeguard one's own troops against a strike.

Reconnaissance plays an important role in an antilanding defense. Primarily it must obtain reliable data about the enemy's nuclear attack means, the strength of his landing forces, and their basing sites and axes of movement. Since landing forces are very mobile while in sea transit, reconnaissance data for the fire of rocket troops and artillery have to come in continuously and be very precise.





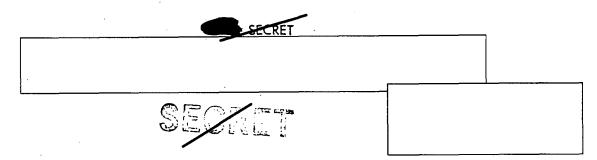
Reconnaisance tasks can be carried out only through the combined efforts of the reconnaissance means of the front, aviation, and the fleet. The organizer of reconnaissance is the front staff, whose plan must stipulate the specific reconnaissance tasks for each of the cooperating means. The staffs of the armies and rocket troops work out their own reconnaissance plans, which are based on the reconnaissance plan of the front staff. Specified in the reconnaissance plan of the staff of the rocket troops and artillery of the front (army) are the specific tasks of missile-artillery reconnaissance and matters of cooperation with fleet and aviation reconnaissance.

Experience shows that in striking at enemy landing forces, the missile units cannot use the data of all the reconnaissance means. For example, they can use data provided by aviation in striking at enemy landing forces at their basing sites, but it is practically out of the question for rocket troops to use these data in hitting at landing forces in sea transit. Aviation is able to determine only the position of a landing force in a specific area and at a specific time. "To deliver a strike, however, the missile units must also know the course and speed at which the landing force is moving. As an example, a case can be cited in which one of the armies, using aerial reconnaissance data acquired at 0730 Hours, delivered a strike of four nuclear missiles and two chemical missiles at 0745 Hours. The landing force changed its position during the 15 minutes spent by the missile units in preparing for the strike, and the strike landed in an empty area."

Radiotechnical reconnaissance means can, by obtaining fixes on ships, provide the most precise information on the position of enemy landing forces. In an exercise the radiotechnical stations of naval bases were used for this purpose. In order to receive reconnaissance data from these stations at the appropriate time, the staffs of the rocket troops and artillery of the <u>front</u> and of the armies had their own representatives with communications means at the shore information posts.

During the preparation of a strike, reconnaissance data on the location of an enemy landing force were transmitted to the staffs and the missile units usually every ten to 20 minutes. This made it possible to determine the projected aiming point with a high degree of accuracy, taking into account the course and speed of the landing force as well as the flight time of the missiles and the time spent on preparing the missiles for launch. At the exercise, two grouped nuclear strikes were delivered against the enemy landing force on the basis of reconnaissance data received from the radiotechnical stations of the shore information posts.





The ground zeroes, as a check determined, occurred in both instances in the center of the cruising formation of the landing force.

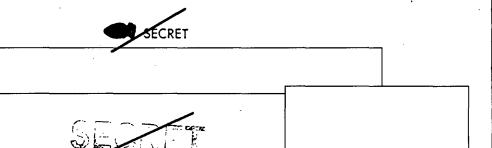
The examples given show that the decision to have the missile units deliver nuclear and chemical strikes against the enemy landing forces in sea transit must be made on the basis of reliable reconnaissance data obtained from various sources. A final reconnaissance of the position of the landing force must definitely be carried out immediately before the strike; to do this, in addition to radiotechnical stations, spotting-and-reconnaissance aviation or ships of the fleet can be used.

Of great importance to the success of an antilanding defense is the establishment of the right grouping of rocket troops and artillery and the advance preparation of a maneuver to the threatened axes at the <u>front</u> and army level.

A grouping of rocket troops and artillery, as the experience of the exercise has shown, must ensure the following: the concentration of the fire efforts of the major part of the rocket troops and artillery against the probable landing axes of the enemy landing forces; the carrying out of a rapid and concealed physical maneuver of troops in the course of conducting an operation; and the antinuclear protection of the battle formations. In forming an artillery grouping, it also has to be taken into account that it must support the independent conduct of combat actions by combined-arms large units and units.

These requirements had not been fully considered at the exercise cited above. The missile large units (units) and artillery were located right on the axes most suitable for the landing of enemy landing forces. Thus, for example, in one of the armies there was located in the zone of a motorized rifle division extending 30 kilometers along the front and six to ten kilometers into the depth, in addition to the divisional artillery, an artillery division (minus one regiment) and an army artillery brigade, altogether with more than 250 guns. The situation was no better with regard to the grouping of the rocket troops. The army missile brigades, as a rule, were located in one siting area, with the battalions spaced apart an average of ten to 20 kilometers. In the immediate vicinity of the missile brigades there were also missile technical units (mobile missile technical bases). All this actually could have led to heavy losses of rocket troops and artillery from enemy nuclear strikes and could also have made it difficult for them to maneuver their fire to hit the landing forces were the latter to land on axes not envisaged in the antilanding defense plan.





As the experience of the exercise has shown, the grouping of rocket troops in an antilanding defense must be determined at the <u>front</u> level, with consideration given to the range of the missiles, the capacities of the siting areas, the conditions of the terrain, and, mainly, the presence of maneuvering routes and suitable sectors for the possible landing of enemy landing forces. In doing this, the <u>front</u> missile units with a range of fire of 300 to 500 kilometers must be <u>located</u> apart from the missile brigades of the armies so that the delivery of massed strikes on the most important axes by a major part of the <u>front</u> rocket troops is ensured.

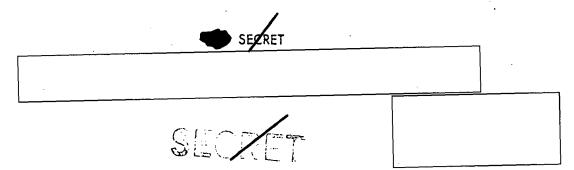
Heavy losses can be inflicted on enemy landing forces by fire from direct-aiming gums. Therefore, units and subunits defending the coast must be reinforced with antitank artillery and antitank guided missiles in addition to tanks. A part of the long-range gum artillery should be placed in firing positions as close as possible to the water's edge.

To ensure the freedom of movement of missile units and artillery to the threatened axes, the matters of selecting and preparing alternate siting areas and relocation routes must be thoroughly thought through. The distance of the alternate siting areas from the main ones should be 40 to 50 kilometers for the missile brigades and 15 to 20 kilometers for the missile battalions of the brigades. Locating the alternate siting areas closer practically excludes their use in the course of an operation, particularly when the enemy delivers surface nuclear strikes.

The destruction of an enemy landing force which has landed is accomplished by the decisive concentration of fire on it by all or the major part of the available means, both by maneuvering trajectories and by quickly transferring rocket troops and artillery to the threatened axes. For this, the <u>front</u> and the armies must in advance plan the maneuvering of rocket troops and artillery, transmit specific tasks to the commanders of the large units (units), allocate relocation routes, carry out the engineer preparation of these routes, calculate the time required for completing the maneuver, and establish uniform control signals.

At the exercise the above measures for preparing a maneuver were not fully reflected in the planning of an antilanding defense; therefore, the transfer of rocket troops and, especially, artillery to the axes where the enemy had put landing forces ashore was carried out with considerable delay. For example, almost a day was needed to transfer an artillery division from the zone of one army to the zone of another.





The highly mobile nature of an antilanding defense necessitates having strong antitank reserves in the <u>front</u>, army, and division. In this regard, depending on the availability of means, maneuvering routes, and areas suitable for the landing of enemy landing forces, not one but several antitank reserves can be established. These should include units of tank-destroyer artillery, antitank guided missiles, and subunits of engineer troops.

The decision to maneuver the fire of the rocket troops and artillery and move the troops themselves must be made very quickly, and the tasks should be transmitted promptly to the commanders of the large units and units in order to gain as much time as possible in making the move and preparing for firing.

In conclusion, let us dwell on several special features of supplying rocket troops with missiles.

Specific fire tasks cannot always be determined for the rocket troops when planning for an antilanding defense is begun. This is particularly true if the planning is organized in the initial period of a war. This impedes to a considerable degree the allocation of missiles and nuclear warheads among the armies and necessitates leaving a considerable part of them in the reserve of the front commander. For these very reasons, the commanders of the armies will have to leave some of the tactical missiles in their reserves. It is advisable to keep the missiles allocated to the reserve in the following places: for the front and army missile brigades and for the battalions of front subordination -- in the front mobile missile technical bases; and for the tactical missile battalions -- in the army mobile missile technical bases.

The relocation and maneuvering of the missile technical units (mobile missile technical bases) in an antilanding defense must be coordinated with the tasks of the missile brigades (battalions), with their placement in the siting areas, and with their maneuvering. Actual practice shows that to decrease the time for delivering missiles, the mobile missile technical bases must be located as close as possible to the siting areas of the missile units. Depending on the terrain, the camouflage conditions, and the supply routes, the distance between the mobile missile technical bases and the siting areas can be from 25 to 30 kilometers. In the same instance, when one mobile missile technical base services several missile brigades, it is advisable to place it in the depth behind the battle formations of the brigades in an area with suitable supply routes.



The preparation of missiles and warheads in the mobile missile technical bases has its own particular features. At the exercise, the front and the armies at the outset of the operation prepared for use all the nuclear- and chemical-warhead missiles issued to them. This was recognized as not being advisable. Actual practice has shown that in the course of carrying out a defense, the missile units and the mobile missile technical bases are forced to shift their battle formations often, moving considerable distances. As a result, some of the nuclear-warhead missiles prepared in advance may be worn out by the technical aspects of shipping and may turn out to be useless at the most critical moments. Repeating the preparation of these missiles in the mobile missile technical base requires a great deal of time. Moreover, it must be taken into consideration that the delivery to missile units of missiles ready for use sometimes entails great difficulties, particularly when helicopters are employed for this purpose.

Therefore, in a period during which an antilanding defense is being organized, it is necessary to prepare and deliver to the missile units missiles intended primarily for the tasks of the initial strike and for the destruction of enemy landing forces at their basing sites and in sea transit. For the remaining tasks, missiles should be delivered during conduct of the defense. In so doing, depending on the situation, the condition of the supply routes, and the availability of transport means, when necessary the missile units can be supplied with separately prepared missile delivery vehicles and warheads in addition to ready missiles. In this case, technical subunits of the missile units will mate the missiles with the warheads.

