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CENTRAL INTELLIGENCE AGENCY
WASHINGTON, D.C. 20505

12 June 1980

MEMORANDUM FOR: The Director of Central Intelligence

FROM : John N. McMahon
Deputy Director for Operations

SUBJECT : USSR GENERAL STAFF ACADEMY LESSONS : Study of the
Radioelectronic Warfare Plan in the Front Offensive
Operation

1. The enclosed Intelligence Information Special Report is part of a series now in preparation based on a collection of 29 lessons, classified TOP SECRET, prepared in 1977 for use in the Soviet General Staff Academy. The lessons are broken down into two parts: the first 19 lessons deal with the staff preparation of a front offensive operation with conventional and nuclear weapons; the remaining 10 lessons deal with the conduct of an offensive employing conventional weapons at first with a transition to the use of nuclear weapons. This report is a translation of the lesson involving planning for the electronic neutralization of NATO reconnaissance, communications, and control systems during a front offensive against NATO's Northern Army Group. The lesson provides limited substantive information, but indicates which types of electronic warfare targets will be selected for nuclear attack and which for electronic neutralization.

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.

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Intelligence Information Special Report

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COUNTRY USSR

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SUBJECT

GENERAL STAFF ACADEMY LESSON NO. 12 : Study of the Radioelectronic Warfare Plan in the Front Offensive Operation

SOURCE Documentary

Summary:

The following report is a translation from Russian of a lesson, classified TOP SECRET, prepared for use at the General Staff Academy of the Armed Forces of the USSR. This lesson is for instruction in front staff planning for the electronic neutralization of key NATO reconnaissance, communications, and control elements during the front offensive. The lesson includes general information on estimating the electronic warfare situation, selecting NATO targets to be neutralized, and organizing the defense of the front's electronic reconnaissance, communications, and control systems. It sets forth the types of communications and control systems used by NATO for first-echelon missile and artillery forces, tactical aviation, and air defense forces, and suggests priority targets for electronic neutralization in each category. The function of electronic warfare units during different phases of the front offensive operation is briefly outlined.

End of Summary

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LESSON No. 12

I. Subject of the lesson: "Study of the radioelectronic warfare plan in the front offensive operation."

II. Estimated time for completing the lesson :

Number and designation of the lesson	Time allotted		
	Group lesson	Individual study	Total
No. 12 on the above-mentioned subject	3	3	6

III. Training objectives of the lesson:

1. To deepen the knowledge of the organization of radioelectronic warfare in the operation.
2. To study the content of the radioelectronic warfare plan in the front offensive operation.

IV. Method of conducting the lesson -- group exercise.

V. Procedure for conducting the lesson.

1. Theoretical discussion: "Main measures on the organization of radioelectronic warfare." Ten minutes are to be spent on this topic.

The organization of radioelectronic warfare includes:

- clarification of the task and an estimate of the radioelectronic situation;

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- development of proposals on the use of radioelectronic forces and means in the operation;
- the planning of radioelectronic warfare;
- establishment of the grouping of radioelectronic neutralization forces and means;
- organization of the control and cooperation of radioelectronic neutralization forces and means;
- organization of radioelectronic defense.

Further, it is advantageous to examine the procedure for planning radioelectronic warfare and the organization of cooperation /among/ radioelectronic warfare forces and means, branch arms, and special troops.

2. Clarification of the tasks of front and adjacent radioelectronic warfare forces and means in the operation. Ten minutes are to be spent on this topic.

3. Conclusions from an evaluation of the enemy's radioelectronic systems.

This topic should be divided into five or six individual subtopics, on each of which one student should give a briefing for seven or eight minutes. In all, 45 minutes are to be spent on this topic.

Attention should be paid to the following:

--- the estimate of the radioelectronic situation -- this is one of the most important elements in the estimate of the operational situation and in the organization of radioelectronic warfare. Success in disorganizing the enemy's troop and weapons control and in the radioelectronic defense of one's own forces and means depends largely on the quality of this estimate. The estimate is to cover the entire zone of the front and the separate axes, taking into account the tasks to be accomplished, and is obligatory as concerns the enemy's control systems;

-- in assessing the systems, one must define the radioelectronic targets whose neutralization will have most effect in disrupting or hampering the enemy's control. It is extremely important to determine the vulnerable elements of the systems, both for destruction by fire and for

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radioelectronic neutralization.

-- in the permanent garrisons and during periods of the movement and deployment of enemy troops, control is provided through the use of the fixed communications systems;

-- from the announcement of a "simple alert," West began to deploy and operationally activate /its/ field communications systems; in particular, the enemy deploys command communications systems at the Northern Army Group to corps level, and the area-type communications systems of the formations and large units.

The most characteristic features of the radioelectronic troop control systems and their vulnerable points are:

a) The radioelectronic control systems of the first-echelon missile and artillery units and large units.

In a division, up to 10 or 12 communications centers are deployed for artillery control, including the communications centers of the battalion fire control posts. The commander of the corps (division) artillery and the battalion commanders have radio nets for centralized fire control. Elements vulnerable to destruction are the battalion command posts; /elements vulnerable/ to radioelectronic neutralization are the radio communications for centralized fire control.

In an army corps, up to eight large communications centers are deployed for control of the large units and units: four /centers/ for the control posts and four in the area-type communications system.

In a division, up to seven communications centers are deployed; of these, four are at the control posts and three are division area-type communications centers (DRUS). Taking into account the subordinate units, up to 20 or 25 communications centers may be deployed in a division.

In a brigade or battalion, control is exercised from a single control post.

It must be emphasized that it is advantageous to put the main command posts of corps and divisions out of action, and to neutralize by jamming the command posts of first-echelon brigades and their radio communications for the command and coordination links.

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b) Radioelectronic control systems for tactical aviation.

These systems provide control and guidance for aviation against ground targets, and also support navigation and aimed strikes.

Targets for radioelectronic neutralization may be:

- command radio communications of aviation large units and units;
- radio communications of the organs for cooperation of tactical and army aviation with ground troops;
- onboard aiming-navigation and reconnaissance radars;
- command radio communications of aircraft in the air and for guidance of army and tactical aviation against air and ground targets; in a first-echelon division there may be seven or eight forward air controllers, who may use two to three ultra-shortwave radio contacts. Consequently, one can expect there to be up to 20 or 30 forward air controller radio contacts in the zone of the front.
- TACAN onboard nonautonomous radio navigation systems; first-line TACAN radio navigation stations are positioned at a distance of 15 to 30 km from the forward edge, on the scale of two to three stations in the zone of a tactical air force (air army). One TACAN station can handle up to 100 aircraft.

c) Radioelectronic systems for control of air defense troops (forces).

Here it should be emphasized that the enemy may employ fixed control organs of the NATO NADGE unified automated air defense system, the LARS low-altitude /radar/ field system, and field organs for the control of surface-to-air missile units and air defense systems. In a corps, control of air defense forces and means is exercised from the control center of the antiaircraft artillery group, and from the six or seven control centers (command posts) of the antiaircraft battalions of the antiaircraft artillery group and of the divisions. As a first step it is advantageous to neutralize in this system the communications centers of the control posts (command posts) of the antiaircraft battalions, the radars for the detection of air targets and for guidance of the air defense means of destruction, and also the radio communications for warning of large units and for the fire control of antiaircraft means.

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The integrated employment of jamming, both by aviation and also by ground troops in conjunction with destruction by fire of the radioelectronic installations of the enemy's fixed and field air defense systems, and also in conjunction with different tactical aviation procedures, permits us to decrease our aviation losses to a level not exceeding 5 to 7 percent. By radioelectronic neutralization alone, losses may be decreased five- or sixfold.

d) The radioelectronic warfare system.

It should be emphasized that an assessment of this system is made by all the chiefs of branch arms and services and by the chief of radioelectronic warfare. The results of this assessment are used in organizing radioelectronic defense, in conducting measures to counteract the enemy's technical reconnaissance means, and also in the jamming neutralization of the control systems of the enemy's radioelectronic warfare forces and means.

It is first of all necessary to destroy the command posts of the radioelectronic warfare units, the receiving and direction-finding centers, and the detected jamming stations. Targets for radioelectronic neutralization will be the reconnaissance radio contacts for large units, the radio contacts for transmitting reconnaissance data from on board aircraft and for control of radio direction-finding posts; the onboard side-looking radars of reconnaissance aircraft, the radars for reconnaissance of moving ground targets; and optical-electronic means.

4. Front radioelectronic neutralization units and their capabilities.

The composition and capabilities of front radioelectronic neutralization units should be discussed with the students for 20 minutes (three persons should brief). In studying this topic, diagrams of the organization and battle formations of the units should be used.

5. Purpose and concept of radioelectronic warfare.

Ten minutes are to be spent on this topic. One or two students are to brief. Draw attention to the fact that when combat actions are being conducted with the employment of nuclear weapons:

-- nuclear weapons will destroy the most important control posts, communications centers, and radioelectronic equipment, both through special strikes and through incidental strikes;

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-- radioelectronic neutralization units will first neutralize the still-functioning radio communications of nuclear weapons units and the onboard radars of delivery aircraft. When combat actions are conducted without the employment of nuclear weapons, the main efforts of the radio-electronic neutralization units will be concentrated on the tactical level, first of all on the division-brigade-battalion level. They will be used by surprise and massively on selected axes, in close conjunction and cooperation with units of other branch arms and services (artillery, engineer, chemical troops, reconnaissance, air defense, and others).

6. Tasks to be accomplished by front radioelectronic neutralization units in the operation.

Forty minutes are to be spent on this topic. Four students will brief.

The topic should be divided into four individual subtopics.

First -- the tasks of radioelectronic neutralization units in repulsing enemy aviation and ground forces groupings.

Second -- the tasks of radioelectronic neutralization units in the initial nuclear strike of the front.

Third -- the tasks of radioelectronic neutralization units in the breakthrough of the forward defense line.

Note especially:

-- when overcoming forward security zones, army separate "N" /ground radio intercept/ battalions and companies of "S" /aircraft radio intercept/ electronic countermeasures battalions which jam ultra-shortwave radio communications and short-range radio navigation, will relocate within the first-echelon divisions' battle formations and conduct reconnaissance in readiness to produce jamming;

-- actions of the radioelectronic neutralization units of the front and armies during a breakthrough will be strictly coordinated in time with the preparatory fire of our troops and the enemy's counteractions; for this it is necessary to disrupt the enemy's radio communications for control of the artillery of large units and units (up to division inclusive) of the first-echelon forces, the radio communications that warn his large units, the forward air controllers' radio communications, the TACAN radio

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navigation systems, and also the onboard side-looking radars of reconnaissance aircraft;

-- during artillery and air support of the attack, taking advantage of the results of the fire destruction of the enemy's control posts and radioelectronic stations, radioelectronic neutralization units will disrupt the radio control of the units that have preserved control, and also of the large units and units allocated for delivery of a counterattack.

Fourth -- the tasks of front radioelectronic neutralization units during the commitment to battle of the second echelon of the front (6th Army).

Note especially:

-- during the commitment to battle of the 6th Army, front radioelectronic neutralization units, in cooperation with camouflage subunits of the engineer troops, must impede /the enemy's/ radar reconnaissance and the delivery of strikes by enemy aviation against second-echelon troops on the movement routes or at the line of commitment to battle, /and must/ simulate bridges and crossings.

7. Assessment of the results of the lesson

For five minutes the director of the training group will point out that:

-- radioelectronic warfare has acquired great importance in a front operation. The control of troops and weapons and the successful conduct of an operation are unthinkable without the steadfast work of radioelectronic systems and means. All matters of radioelectronic warfare must be carefully coordinated and agreed upon between the branch arms and services, for the purpose of destroying and neutralizing the enemy's radioelectronic systems in an integrated manner, and for the radioelectronic defense of our own systems.

-- without slackening the attention paid to the operational level, it is necessary to concentrate the main efforts of radioelectronic neutralization units on the tactical level of control, on the arena of combined-arms combat; this principle has been set forth in the plan that has been studied.

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A general conclusion on the lesson should be drawn, the quality of the students' preparation for the lesson should be evaluated, and any possible questions should be answered.

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