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CENTRAL INTELLIGENCE AGENCY
WASHINGTON, D.C. 20505

6 June 1980

MEMORANDUM FOR: The Director of Central Intelligence

FROM : John N. McMahon
Deputy Director for Operations

SUBJECT : USSR GENERAL STAFF ACADEMY LESSONS : Preparation and Critique of the Plan of the Combat Employment of the Rocket Troops and Artillery in a 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 on the involvement of a front chief of rocket troops and artillery in the planning, preparation, and time factors for an initial and subsequent nuclear strikes in the northern area of West Germany.

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.

John N. McMahon

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Intelligence Information Special Report

COUNTRY USSR

FIRDB- 312/01110-80

DATE OF INFO. 1977

DATE 6 June 1980

SUBJECT

GENERAL STAFF ACADEMY LESSON No. 7a : Preparation and Critique of the Plan of the Combat Employment of the Rocket Troops and Artillery in a 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 the instruction of students acting as front chiefs of rocket troops and artillery in planning an initial nuclear strike and follow-up strikes with 360 missiles in the area of NATO's Northern Army Group. It covers the NATO targets to be hit (missile and SAM units, airfields, nuclear warhead depots, control and warning posts, and ground divisions), warhead yields, damage estimates, time factors for the initial strike, dimension and distance factors for missile sites, missile allocation for the initial and follow-up strikes, and missile preparation times. It also includes a table of times required to bring to a state of combat readiness the 21 missile units involved. End of Summary

Comment:

Although not specifically identified, the colors representing NATO countries in this series probably equate as follows:

Brown - West Germany
Blue - Great Britain
Lilac - Belgium

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Lesson No. 7a

I. Lesson subject: "Preparation and critique of the plan of the combat employment of the rocket troops and artillery in a front offensive operation."

II. Estimated time for completing the lesson subject is depicted in Table 1.

Table 1

Number, lesson subject	Time allocated		Total
	Group training period	Individual study by students	
Lesson 7a "Planning the combat employment of the rocket troops"	4	5	9
Lesson 7b "Planning the combat employment of the artillery"	4	5	9
Total:	8	10	18

III. Training objectives of the lesson:

-- to consolidate the knowledge of the students and to examine in detail the plan of the combat employment of the rocket troops and artillery in a front offensive operation;

-- to give the students practice in planning and to deepen knowledge on matters of the nuclear and fire destruction of enemy groupings by means of rocket troop strikes and artillery fire;

-- to teach the students to report cogently, concisely, clearly, and completely the contents of and procedure in planning the combat employment of rocket troops and artillery; and to organize control and comprehensive support;
-- to consolidate the students' knowledge of the organization of missile and artillery large units and units and of the tactical-technical specifications of the missile and artillery systems;

IV. Method of conducting the lesson -- group exercise on maps in the classroom.

V. Methodological recommendations on the preparation of the students for the lesson.

Upon the start of the independent preparation of the students for the lesson, the directors of the training groups conduct a group briefing, if necessary, in the course of which they recommend:

-- to use as the basis for preparing a well-founded report on "The Plan of the Combat Employment of the Rocket Troops and Artillery in the Offensive Operation of the Coastal Front" the assignment materials for lessons 7a and 7b, the calculations made by the students in the hours of individual study in conformity with the assignment, and the rules in the textbook;
-- to arrange their direct preparation for the lesson in the following sequence:

a) to spend approximately one hour on studying the recommended literature, focusing special attention on solidly learning the organization of missile and artillery large units and units, the tactical-technical specifications of the missile systems, the norms on missile preparation, and the levels of readiness of the rocket troops;
b) to study the assignment, schedule for the preparation and delivery of the initial nuclear strike by the rocket troops, and "The Plan of the Combat Employment...", also allotting to this section of the preparation approximately one hour;
c) to complete the planning and working documents and prepare the reports on all items of the assignment in the course of three hours.

VI. Procedure for the conduct of Lesson No. 7a -- four hours (180 minutes /sic/).

"Planning the combat employment of the rocket troops."

1. To examine two questions on theory -- 15 to 20 minutes.

The essence and content of nuclear destruction? Its essence consists in the simultaneous or successive delivery of nuclear strikes on the enemy with a view to decisively destroying /his/ nuclear means, in disrupting or weakening his nuclear attack, in routing the main grouping of his troops, especially the tank, artillery, and other fire means of the enemy, in gaining and maintaining nuclear superiority in the operation, in seizing the initiative in the conduct of combat actions, and in establishing the necessary conditions for completing the rout of the enemy with the ground forces.

Methods by which rocket troops accomplish the tasks of nuclear destruction? Rocket troops inflict nuclear destruction by conducting the initial (massed) nuclear strike, delivering follow-up nuclear strikes immediately following the initial nuclear strike, and massed, grouped, and single nuclear strikes against surviving and restored groupings of the enemy, and against his groups of installations and separate installations throughout the entire depth of the operation, in close cooperation with other means of destruction until the aims of the operation are achieved.

2. Planning the initial nuclear strike by front rocket troops -- 110 minutes.

The students in the role of chief of the front rocket troops and artillery make reports to the troop commander on these items:

-- the tasks of the rocket troops in the initial nuclear strike of the front ;
-- the allocation of targets, assessment of the expected effectiveness of the destruction, the content of the schedule for the preparation and delivery of the initial nuclear strike by the front rocket troops;
-- the planning for the advance and deployment of missile large units and units, their being brought to readiness for the

delivery of the initial nuclear strike, and the raising of the levels of readiness.

3. Planning the supplying of front rocket troops with missiles -- 45 minutes.

Content of the report of the chief of the front rocket troops and artillery by paragraph (variant)

1. a) Strategic Rocket Forces in the offensive zone of the front destroy and strike military and military-industrial targets: on the JUTLAND axis -- to the north of the line FLEYSBURG /?sic for FLENSBURG/, WESTERLAND; on the coastal-RUHR axis -- to the west of the line NORDEN, MEPPEN, LUNEN;

b) Front rocket troops in the initial nuclear strike destroy:

-- the 2nd Pershing-1A Missile Wing, the 650th and 50th Lance missile battalions, the 24th and 50th Lance missile regiments, the 450th Sergeant Missile Battalion (Nos. 001 to 028); delivery aircraft on 13 airfields (Nos. 51 to 63); depots and field storage and supply posts for nuclear weapons -- 13 (Nos. 1 to 13); command posts, control and warning centers, and control and warning posts -- 11 (Nos. 151 to 161), Hawk surface-to-air missile batteries -- 33 (Nos. 201 to 233);

-- they inflict damage in cooperation with the front air army on 12 enemy divisions with their tactical means of nuclear attack: the 21st, 18th, 6th, 14th, 15th, 1st, 2nd, 4th, and 101st motorized infantry divisions, the 3rd and 7th tank divisions, the 1st Armored Division (Nos. 301 to 378).

Of the total number of targets to be destroyed, the delivery means make up 16 percent, nuclear weapons depots, mobile field storage posts and mobile field supply posts -- 7.5 percent, delivery aircraft on the airfields -- 7.5 percent, control posts, control and warning centers, and control and warning posts -- 6.5 percent, motorized infantry and tank troops, also including /their/ tactical nuclear means -- 44 percent, and air defense means -- 18.5 percent.

c) In accordance with the scope and procedure for accomplishing the tasks of the enemy's nuclear destruction, with the operational disposition of front troops, and the assigned

tasks and arrival times of the missile large units and units in the complement of the front, the plans are to employ 176 missiles in the initial nuclear strike (operational-tactical missiles -- 90, tactical missiles -- 86) which constitute 49 percent of the total number of nuclear warheads to be issued to the rocket troops for the operation, and 61 percent of those available in the front at the start of the operation. The stated number of missiles to be employed in the initial nuclear strike is determined in the light of the available reconnaissance data on the enemy at the given moment, and the anticipated strength of the troop grouping of the Northern Army Group.

The specific number of enemy targets to be destroyed in the initial nuclear strike can change, and the total outlay of missiles in the initial nuclear strike can constitute up to 50 percent of the entire number allocated to the operation.

Of the 160 tactical missiles available to front troops at the start of the operation for the delivery of the initial nuclear strike, 56 are planned as a single launch. Consequently, in a follow-up launch it is possible to additionally employ 30 tactical missiles. Thus, in the initial nuclear strike there can be employed a total of: 90 operational-tactical missiles and 86 tactical missiles, where tactical missiles constitute 43 percent and operational-tactical missiles constitute 56 percent of the total number allocated for the operation.

CONCLUSION. The main efforts of the rocket troops are directed toward the rout of the main grouping of the enemy (of his means of nuclear attack, grouping of tank and motorized infantry troops, and control posts) on the axis of the front's main attack.

d) For the timely destruction of the means of nuclear attack and other important targets, provisions have been made to detail for combat alert status one missile battalion from each of the front and army missile brigades and also the 6th Army Missile Brigade and the 2nd Corps Missile Brigade at full strength. The combat alert is organized from the main siting areas (see Appendix 1). The start of the combat alert of the on-alert battalions is by special order upon the receipt of the authorization to issue the warheads. The targets assigned to the on-alert battalions are: the Pershing-1A missile squadrons, the

Lance and Sergeant missile batteries, and delivery aircraft on airfields. All battalions on alert will be equipped with 100 KT-yield missiles.

e) The destruction of the main grouping of the ground forces (the Brown 1st and 4th army corps, the Blue 1st Army Corps, the Lilac 2nd Army Corps) and of other major enemy targets on the axis of the front's main attack is achieved by employing the bulk of the missiles. Thus, of the 176 missiles to be employed in the initial nuclear strike, 53 and 78 missiles, that is 68 percent, are to be expended against the ground grouping on the CELLE-BRUSSELS axis.

The targets of nuclear strikes are allocated among the missile units taking into account the nature and depth of the disposition of the targets, the launch range, and the yields of the nuclear charges of the missiles. The strikes are planned in the light of the axis of the offensive, the gaining of the most advantageous launch range, and the achieving thereby of the greatest possible reliability in the fulfilment of the tasks.

Using the data of Appendix 1 ("The Plan of the Combat Employment of the Rocket Troops and Artillery"), and Appendix 2 ("Schedule of the Preparation and Delivery by the Rocket Troops...")*, the students report the allocation of targets among the missile brigades of the front and armies and the separate missile battalions of the divisions.

f) The assessment of the effectiveness of the nuclear strikes against the targets under most typical conditions of the Western Theater of Military Operations is determined on the PES-M calculating device. The analysis of the results of the nuclear strike effectiveness assessment in accordance with the allocation of targets that was done and the yields of the nuclear charges designated for accomplishing the tasks permits coming to the following conclusions:

-- air nuclear bursts (from low to very high) are prescribed against all the targets, taking into account safety conditions and the nature of the subsequent actions of the troops;
-- the levels of the effectiveness index (probability of destruction) for all the targets pertaining to the group of

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* [redacted] Comment: Appendices were not received.

nuclear attack means are equal to 90 percent or more;

-- the levels of the effectiveness index for all the other point (single) targets (probability of destruction) equal: 80 to 95 percent for the air defense targets (Hawk surface-to-air missile batteries, control and warning centers, control and warning posts, observation and warning posts); 90 to 100 percent for nuclear warhead depots, field-mobile nuclear weapons supply (storage) points, and 20 to 30 percent for permanent depots;

-- the levels of the effectiveness index (the part of the target to be struck reliably) for all the group targets equal from 35 to 60 percent; the effectiveness (probability of destruction) is not less than 90 percent for the 1st Pershing-1A Missile Squadron, aircraft on an airfield, and the 37th Hawk Surface-to-Air Guided Missile Artillery Battalion, against which the delivery of strikes by the 2nd Front Missile Brigade is planned;

-- the safe distances of our troops from ground zero of air nuclear bursts being planned, with the personnel disposed in closed armored personnel carriers (BMP infantry combat vehicles) for maximum yield (R-300 -- 100 KT, R-65 -- 20 KT) equal: 4,2 km for operational-tactical missiles, 3,7 km for tactical missiles;

-- with respect to the large group targets (motorized infantry divisions, armored divisions, and the like) the level of the effectiveness index is in accord with the assigned task. For the destruction of this type of large group target, it is equal to 60 percent and more, for a lesser degree of damage it is from 40 to 50 percent of the main combat subunits and command posts.

As is evident from Appendix 2, the "Schedule for the Preparation and Delivery of the Initial Nuclear Strike by the Rocket Troops..." indicates: the missile large unit, unit, subunit, and numbers of launchers, the yield of the nuclear missiles, the number and designation of the target (primary or alternate), the expected effectiveness of the nuclear strikes, the procedure of bringing the rocket troops to readiness for the initial nuclear strike and the time for accomplishing the launch, the forces and means of reconnaissance and final reconnaissance of targets, the information (necessary) about the tasks to be accomplished by the front aviation, the control signals, and also the actions of the rocket troops during an operation that begins without the employment of nuclear weapons.

The final reconnaissance of the targets and the monitoring of the results of the nuclear strikes is performed by the 20th Reconnaissance Air Regiment for the front missile brigades; and by the 21st and 22nd tactical reconnaissance air regiments for the missile brigades and separate missile battalions of the armies.

CONCLUSION. All targets assigned to the front rocket troops in the initial nuclear strike will be destroyed. Approximately 60 percent of the total number of targets to be destroyed in the initial nuclear strike are apportioned to the rocket troops.

g) The organization of the initial nuclear strike:

-- from LAUNCH to LAUNCH plus 5 to 6 /minutes/ -- the initial launch of the rocket troops against targets whose coordinates will be known at this time;
-- from LAUNCH plus 12 to LAUNCH plus 40 -- the final reconnaissance of targets in support of rocket troops, and the strikes of the front air army;
-- from LAUNCH plus 40 to LAUNCH plus 45 -- the movement of aviation out of the strike zones of the rocket troops when the latter deliver strikes against targets that have undergone final reconnaissance and targets that are to be hit by the follow-up launches of tactical missile battalions;
-- from LAUNCH plus 45 to LAUNCH 50 -- the rocket troop strikes against targets that have undergone final reconnaissance, and the follow-up strikes.

2. Planning the advance and deployment of front troops is done by the front staff. The rocket troops and artillery staff participates in developing the part of the plan that concerns the advance and deployment of the missile and artillery large units and units.

For the advance and deployment of the rocket troops and artillery one does the following beforehand: selects the routes, prepares the primary and alternate siting areas, and prepares the temporary siting areas for the on-alert missile battalions.

Next, the instructor examines within the overall task:

-- the dimensions of the siting areas for missile brigades: 30 to 40 by 35 to 40 km, for separate missile battalions: 6 to 9

by 6 to 9 km;

-- the distance between adjacent missile battalions and launch batteries is 10 to 15 km and 3 to 4 km respectively. The distance of the missile technical platoon from the launch battery is 4 km; of the technical battery from the mobile missile technical base is 8 to 10 km; of the missile technical platoon of a separate missile battalion from the launch battery is 2 to 3 km;

-- the distances of the siting areas from the forward line of the troops: for the R-300 missile brigade it is 40 to 60 km, for the separate tactical missile battalion it is 10 to 15 km.

For bringing the rocket troops to readiness for delivery of nuclear strikes it is necessary to carry out five basic measures:

1) place on alert and assemble; 2) march to the siting areas; 3) deploy into battle formation; 4) shift the R-300 delivery missiles from Readiness No. 6 (R-65 from Readiness No. 5) to Missile Readiness No. 4, and then shift the missile large units and units to Readiness No. 3; 5) move out the launch batteries and launchers to the launch sites and shift (as needed) to Readiness No. 2 or No. 1.

Bringing the rocket troops to readiness for the delivery of the initial nuclear strike can be carried out continuously or in two or sometimes three stages.

In the first case, the missile large units and units shift without interruption to Readiness No. 3 from /the time they are/ placed on alert up to the departure of the launchers to the launch sites. In the case of bringing the missile large units and units /to readiness/ in two stages, their placing on alert, departure, and deployment into battle formation are performed in the first stage, and in the second the missile carriers are fueled, mated with the warheads, and transloaded to the launchers, and the launchers depart for the launch sites. In this case, the second stage can start after receiving authorization to issue warheads and fuel the missiles.

The estimated time for bringing the missile large units and units to readiness for the delivery of the initial nuclear strike is given in Table 2. In Table 2, the variant examined is the one where, before receipt of the signal for the issuing of warheads,

the following have been carried out already: the delivery missiles have been fueled with missile propellant and they have been transloaded to the launchers, and the tactical missiles are in the tactical missile battalions in Readiness No. 4 guarded by representatives of the mobile missile technical base.

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Table 2

Large units and units	Route length, kilometers	Assembling for alert, minutes	March, hours	Time for bringing to full combat readiness				
				Deployment of missile technical elements, minutes	For preparation of missiles, hours			Total, hours
					before the signal for warhead issuing,* minutes	after the signal for warhead issuing,** minutes	Departure of launchers to launch sites, minutes	
1	2	3	4	5	6	7	8	9
2nd Front Missile Brigade	100	40	4 hrs	50	110	60	20	8 hrs 40 min
3rd Front Missile Brigade	60	40	2 hrs 25 min	50	110	60	20	7 hrs 05 min
4th Army Missile Brigade	40	40	1 hr 35 min	50	110	60	20	6 hrs 15 min
3rd Separate Missile Battalion	50	40	2 hrs	5	-	15	15	3 hrs 15 min
7th Separate Missile Battalion	30	40	1 hr 15 min	5	-	15	15	2 hrs 30 min
8th Separate Missile Battalion	40	40	1 hr 35 min	5	-	15	15	2 hrs 50 min
14th Separate Missile Battalion	60	40	2 hrs 25 min	5	-	15	15	3 hrs 40 min
7th Army Missile Brigade	30	40	1 hr 15 min	50	110	60	20	5 hrs 55 min
1st Separate Missile Battalion	80	40	3 hrs 15 min	5	-	15	15	4 hrs 30 min
4th Separate Missile Battalion	30	40	1 hr 15 min	5	-	15	15	2 hrs 30 min
5th Separate Missile Battalion	60	40	2 hrs 25 min	5	-	15	15	3 hrs 40 min
9th Separate Missile Battalion	110	40	4 hrs 25 min	5	-	15	15	5 hrs 40 min

* Fueling of the R-300 delivery missiles and their transloading to the launchers,
** Mating of the R-300 warheads is accomplished directly on the launchers.

[redacted]

Table 2 cont.

1	2	3	4	5	6	7	8	9
11th Separate Missile Battalion	120	40	4 hrs 50 min	5	-	15	15	6 hrs 05 min
9th Army Missile Brigade	50	40	1 hr 15 min	50	110	60	20	5 hrs 55 min
6th Separate Missile Battalion	120	40	4 hrs 50 min	5	-	15	15	6 hrs 05 min
10th Separate Missile Battalion	50	40	2 hrs	5	-	15	15	3 hrs 15 min
18th Separate Missile Battalion	50	40	2 hrs	5	-	15	15	3 hrs 15 min
21st Separate Missile Battalion	40	40	1 hr 35 min	5	-	15	15	2 hrs 50 min
23rd Separate Missile Battalion	60	40	2 hrs 25 min	5	-	15	15	3 hrs 40 min
6th Army Missile Brigade	80	40	3 hrs 15 min	50	110	60	20	7 hrs 55 min
4th Mobile Missile Technical Base	40	40	1 hr 35 min	110	-	-	-	4 hrs 05 min
7th Mobile Missile Technical Base	40	40	1 hr 35 min	110	-	-	-	4 hrs 05 min
2nd Corps Missile Brigade	90	40	3 hrs 35 min	50	110	60	20	8 hrs 15 min
2nd Corps Mobile Missile Technical Base	70	40	2 hrs 50 min	110	-	-	-	5 hrs 20 min
9th Mobile Missile Technical Base	20	40	0 hrs 50 min	110	-	-	-	3 hrs 20 min
2nd Front Mobile Missile Technical Base	90	40	3 hrs 35 min	110	-	-	-	6 hrs 05 min
3rd Front Mobile Missile Technical Base	70	40	2 hrs 50 min	110	-	-	-	5 hrs 20 min
3rd Separate Missile Transport Battalion	40	40	1 hr 35 min	110	-	-	-	4 hrs 05 min

CONCLUSION. It will take up to an hour and a half to bring the rocket troops of the Coastal Front to readiness for participation in the initial nuclear strike under the conditions considered above; in the process, the majority of the separate missile battalions of the divisions will be brought to Readiness No. 3 within half an hour.

The bringing to full combat readiness, from the moment of receipt of the combat alert signal, is characterized by the following data (see Table 1, Appendix 4 to the assignment):

-- 3rd Front Missile Brigade: march -- 60 km, march time -- 2 hrs, 25 min, time for placing on alert, march, and deployment -- 4 hrs, 05 min, time for preparing the missiles -- 2 hrs, 45 min;

-- 7th Army Missile Brigade: march -- 30 km, march time -- 1 hr, 15 min, time for placing on alert, march, and deployment -- 2 hrs, 55 min, time for preparing the missiles -- 2 hrs, 45 min.

For the covert conduct of measures for shifting the rocket troops to full combat readiness, it is advisable that they execute their advance and deployment only at night and carry these out in succession at different times.

3. The allocation of missiles with respect to tasks and formations. Considering the volume of the tasks to be accomplished by the rocket troops in the initial nuclear strike, when front troops are accomplishing the immediate and follow-up tasks, and also considering the tasks to be accomplished by the air army, the missiles allocated to the rocket troops for the operation are distributed as follows:

-- for fulfilment of tasks in the front's initial nuclear strike -- 176 (49 percent);
-- for fulfilment of front's immediate task -- 94 (26 percent);
-- for fulfilment of front's follow-up task -- 64 (18 percent);
-- for reserve -- 26 (7 percent).

For accomplishment of the tasks of nuclear destruction of the opposing troop grouping in the offensive zones of the armies,

from the resources for the immediate task allocate missiles as follows:

-- 4th Army -- 13 (operational-tactical missiles -- 3, tactical missiles -- 10);
-- 7th Army -- 17 (operational-tactical missiles -- 3, tactical missiles -- 14);
-- 9th Army -- 18 (operational-tactical missiles -- 4, tactical missiles -- 14);
-- 6th Army -- 21 (operational-tactical missiles -- 5, tactical missiles -- 16);
-- 2nd Army Corps -- 8 (operational-tactical missiles -- 2, tactical missiles -- 6);
-- 10th Tank Army -- from the resource for the follow-up task -- 16 (operational-tactical missiles -- 6, tactical missiles -- 10);
-- to the front missile brigades for the front's immediate task -- 17 missiles (2nd Front Missile Brigade -- 8, 3rd Front Missile Brigade -- 9).

For the availability and condition of the nuclear warheads at the start of the operation, and also the schedule for their receipt during the operation -- see Appendix 3, item 2.

4. Missile Support of the Front Troops

a) Supplying of nuclear warheads and R-65 missiles for the initial nuclear strike. The operational-tactical missile warheads in Special Readiness 5 and the R-65 missiles in Readiness No. 4 are brought to the primary siting areas of the operational-tactical missile brigades and tactical missile battalions by transportation of the front mobile missile technical bases and army mobile missile technical bases at the start of bringing front troops to full combat readiness, and they are kept under the supervision of mobile missile technical base representatives.

After receipt of the signal (order) for the transfer of the warheads, their mating with the delivery missiles on the launchers is carried out right at the operational-tactical missile battalions, and the R-65 missiles are transferred to the launchers.

When two cranes are available in each operational-tactical missile battalion, the successive mating of two warheads will require one hour (30 plus 30 minutes). The R-65 missiles are transloaded by crane; 15 minutes are spent in the transloading to each launcher.

The mobile missile technical bases have a sufficient number of transport means for supplying the operational-tactical missile warheads and ready tactical missiles.

In the example of the 4th Army Mobile Missile Technical Base, we see that the army mobile missile technical base has 30 storage vehicles to supply 12 R-300 warheads for the initial nuclear strike. For supplying a total of 25 ready missiles to the separate tactical missile battalions, nine transport vehicles are required and there are nine available. Thus, the available resources in the 4th Army Mobile Missile Technical Base for the transporting of warheads and ready R-65 missiles are fully adequate in the variant we have discussed.

If the organic transport means for supplying the nuclear weapons are insufficient, then the plan will provide for the allocation of the missing number /of transport means/ from front mobile missile technical bases or front separate missile transport battalions. In the conditions of the situation under discussion, the transport means required for reinforcement are: one and two tactical missile transport vehicles for the 7th and 9th army mobile missile technical bases, respectively.

b) Missile preparation and supply for follow-up launches

The preparation of the missiles for follow-up launches can be done directly in the missile large units and units or, what is more typical, at the mobile missile technical bases.

For the preparation of 12 R-300 missiles (the initial condition: delivery missiles are in Readiness No. 6, and warheads in Special Readiness 5) right at the missile brigades, 2 hours, 45 minutes are required. The same number of R-300 missiles at the mobile missile technical base can be shifted to Readiness No. 4 only within 4 hours, 50 minutes.

The mating and transloading of four R-65 missiles in a separate missile battalion are performed in one hour, 10 minutes (taking into account the movement to the missile technical platoon position and then to the launch site).

If the warheads are kept at the mobile missile technical bases in Special Readiness 4, the time required to shift operational-tactical missiles and tactical missiles to Readiness No. 4 is significantly greater.

In the example of the 9th Army, we see that at the 9th Army Mobile Missile Technical Base, it is necessary to prepare six R-300 and five R-65 missiles (of the number available) for the immediate task.

To shift the R-300 warheads to Special Readiness 5 (without performing checkout tests) the following are necessary: for one warhead with one assembly group at work -- two hours, for three warheads -- six hours. In this way, two assembly groups will perform this work within six hours.

To shift five R-65 warheads to Special Readiness 5 (without performing checkout tests), the following are necessary: for one warhead -- 1 hour, 25 minutes, for three -- 4 hours, 15 minutes.

To shift six R-300 delivery missiles to Readiness No. 5, 12 hours are required (1 hour, 55 minutes per delivery missile). Subsequent shifting of R-300 missiles to Readiness No. 4 will be carried out by assembly line method (in two lines) within 2 hours, 45 minutes. Thus, approximately 15 hours in all will be necessary for the preparation of six missiles (to Readiness No. 4).

The mating of the R-65 delivery missiles and their preparation for transport can be carried out by two assembly groups in 1 hour, 18 minutes. Altogether, approximately 5 hours, 35 minutes will be required for the preparation of five R-65 tactical missiles.

c) Receipt and preparation of missiles during the operation.

From the arsenals and bases of the center, the front receives the following by rail or air transport at the materiel support unloading stations or airfields: the R-300 delivery missiles with accessory components at the arsenal level of readiness, the R-65 delivery missiles in Readiness No. 5, the warheads for operational-tactical missiles and tactical missiles in Special Readiness 4 with a mandatory conduct of checkout tests during their shift to Special Readiness 5.

From the KONIGS WUSTERHAUSEN unloading station and AMO-BOSEN /?Materiel Support Airfield - BOSEN/*, the 3rd Separate Missile Transport Battalion will receive and deliver the delivery missiles and warheads to the front mobile missile technical bases and army mobile missile technical bases. At the front mobile missile technical bases and army mobile missile technical bases, the missiles are shifted to Readiness No. 4 and are delivered according to plan to the missile brigades and separate missile battalions.

The instructor's conclusion of the lesson -- five minutes

In conclusion, he notes that the planning of the combat employment of rocket troops in a front offensive operation is carried out in a standard variant for the conduct of an operation both with the employment of nuclear weapons and without the employment of nuclear weapons. In this instance, a systematic refinement of the plan of combat employment of the rocket troops in the operation will be required.

The basic document is "The Plan of the Combat Employment of the Rocket Troops and Artillery in a Front Offensive Operation" with explanatory memorandum and working documents, which constitutes an integral part of the front offensive operation plan.

The employment of the rocket troops in the front initial nuclear strike is the most important section of the planning of their combat actions.

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* Translator's note: Neither the US Department of Interior gazetteer nor the Defense Mapping Agency carry a BOSEN in East Germany.

The initial nuclear strike is planned in all its details by the nuclear planning group, in whose work the chief of the front rocket troops and artillery participates directly. The tasks for the initial nuclear strike are assigned by the front commander; in the process, only the enemy large units and units and the number and yield of the strikes to be delivered are specified for the separate tactical missile battalions. Army commanders refine the plan of the initial nuclear strike plan during the operation for their organic and attached delivery systems, but it is mandatory that any changes made are approved by the front commander.

During the operation, by order of the formation commander tasks concerning the preparation and delivery of single and group nuclear strikes can also be assigned by the chief of the rocket troops and artillery.

Planning the combat employment of the rocket troops in the initial nuclear strike is a voluminous, complex, and important process requiring the close attention of not only the chief and staff of the rocket troops and artillery, but also of the front commander and staff. It is especially important that the complete, reliable, and accurate enemy target data needed by the rocket troops be received with timeliness.

In concluding, he points out the objectives set forth in the given lesson, evaluates the level of achievement of the students and also their work, gives instructions on correcting poorly mastered principles on the combat employment of rocket troops, and orients them on preparing for the next lesson in the department's course.