

1/16/2006

HR 70-14

~~TOP SECRET~~

3266

CENTRAL INTELLIGENCE AGENCY  
WASHINGTON, D.C. 20305

10 August 1978

MEMORANDUM FOR: The Director of Central Intelligence  
FROM : John N. McMahon  
Deputy Director for Operations  
SUBJECT : MILITARY THOUGHT (USSR): Engineer Support  
of Surface-to-Air Missile Units in a Front  
Offensive Operation

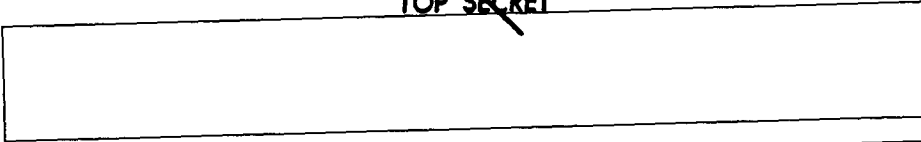
1. The enclosed Intelligence Information Special Report is part of a series now in preparation based on the SECRET USSR Ministry of Defense publication Collection of Articles of the Journal "Military Thought". This article sums up the large volume of engineer preparation required by missile units, particularly when constantly relocating in a first offensive operation, when engineer forces are below strength. Several suggestions are offered for economizing on engineer efforts through elimination of less essential protective measures or transferring them to the missile units themselves, use of roadbeds and other unprepared locations as launch sites, and incorporation of engineer companies and platoons into missile regiments and battalions. This article appeared in Issue No. 3 (70) for 1963.

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

*JN*  
John N. McMahon

~~TOP SECRET~~

~~TOP SECRET~~



Distribution:

The Director of Central Intelligence

The Director of Intelligence and Research  
Department of State

The Joint Chiefs of Staff

The Director, Defense Intelligence Agency

The Assistant to the Chief of Staff for Intelligence  
Department of the Army

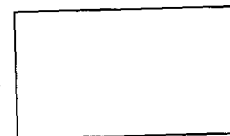
The Assistant Chief of Staff, Intelligence  
U. S. Air Force

Director, National Security Agency

Deputy Director of Central Intelligence

Director of the National Foreign Assessment Center

Director of Strategic Research



~~TOP SECRET~~

~~TOP SECRET~~



[REDACTED]

## Intelligence Information Special Report

Page 3 of 17 Pages

COUNTRY USSR

DATE OF INFO. Late 1963

[REDACTED]  
DATE 10 August 1978

SUBJECT

MILITARY THOUGHT (USSR): Engineer Support of Surface-to-Air Missile Units in a Front Offensive Operation

SOURCE Documentary

Summary:

The following report is a translation from Russian of an article which appeared in Issue No. 3 (70) for 1963 of the SECRET USSR Ministry of Defense publication Collection of Articles of the Journal "Military Thought". This article, written by Engineer Colonel V. Semenov, sums up the large volume of engineer preparation required by missile units, particularly when constantly relocating in a first offensive operation, when engineer forces are below strength. Several suggestions are offered for economizing on engineer efforts through elimination of less essential protective measures or transferring them to the missile units themselves, use of roadbeds and other unprepared locations as launch sites, and incorporation of engineer companies and platoons into missile regiments and battalions.

End of Summary

[REDACTED] Comment:

Colonel Semenov also wrote "Airfield Engineer Support of the Air Army in the First Offensive Operation of the Front" in Issue No. 4 (65) for 1962 [REDACTED].

[REDACTED]

[REDACTED]

~~TOP SECRET~~

~~TOP SECRET~~

Page 4 of 17 Pages

Engineer Support of Surface-to-Air Missile  
Units in a Front Offensive Operation

by  
Engineer Colonel V. SEMENOV

The presence of surface-to-air missile units in the complement of a front and armies considerably enhances the combat might of the front's air defense, which at the present time is capable of covering our troops more reliably than before in an offensive operation of a war's initial period. Equipping surface-to-air missile units with modern combat equipment has extended the limits of their use and has placed a number of requirements upon the organization of the combat actions of these units and upon their comprehensive support in the operation.

In our opinion, worthy of detailed examination are such questions as the particular features of engineer support for the actions of surface-to-air missile units, the minimum necessary volume of engineer work to protect combat equipment and personnel, the possible time periods required for the engineer preparation of siting areas, and also the forces and means required for these purposes.

Engineer support of the constant combat readiness of surface-to-air missile units has its own characteristic features. It is common knowledge that, while we are still at peace, some of the surface-to-air missile units and subunits of a military district (front) will be on combat alert and the remaining ones will be deployed in accordance with the plan for the front's initial offensive operation.

The objective of engineer support of surface-to-air missile units and subunits is to create conditions supporting their deployment, their constant combat readiness to repel a surprise enemy attack, their reliable antinuclear protection in siting areas, and their successful fulfilment of their tasks in the front offensive operation.

The principal engineer measures which facilitate accomplishing the indicated objective are engineer preparation of

~~TOP SECRET~~

~~TOP SECRET~~

[REDACTED]

[REDACTED]

Page 5 of 17 Pages

siting areas and positions for the surface-to-air missile units and subunits on alert, selection of main and alternate siting areas for the rapid and concealed deployment of the surface-to-air missile units which are not on combat alert in peacetime, preparation of routes for the unobstructed departure of these units from their permanent garrison posts to the siting areas, and also camouflage work.

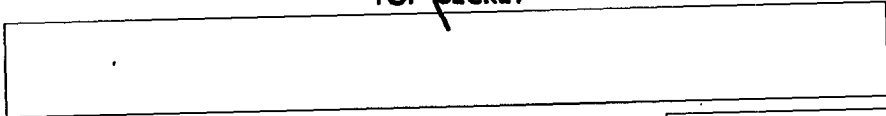
The siting areas and launch sites of the surface-to-air missile units on alert are prepared from an engineer standpoint in peacetime and are disposed so as to create zones of cover for the deployment areas of the army and front troops. In view of the fact that we cannot exclude the possibility that the enemy will deliver a nuclear strike not only against targets located in the zone of cover but also against the positions of the means on alert, it seems to us that at the firing positions and control posts of these units and subunits it is advisable to construct personnel shelters from prefabricated reinforced concrete or corrugated steel, emplacements for the launchers, and pit-type shelters for the special and transportation equipment. The engineer preparation of such areas and positions is carried out by forces of the units themselves, with the involvement of military construction organizations and engineer units of the military district.

To ensure the constant combat readiness of the surface-to-air missile subunits on alert requires the preparation of disposition areas of the army and front surface-to-air missile technical bases supplying these subunits with surface-to-air missiles. When preparing the disposition areas of these bases from an engineer standpoint, it is desirable to make provisions to protect the personnel and special equipment against enemy nuclear strikes, above all, to construct protective positions, shelters, and dugouts. The disposition areas of the surface-to-air missile technical bases and the positions of the surface-to-air missile subunits on alert must be connected by motor vehicle roads and alternate routes ensuring the delivery of surface-to-air missiles in any weather.

The organization of engineer support for the front's initial offensive operation requires selection, while it is still peacetime, of terrain sectors to accommodate the main and alternate siting areas of the surface-to-air missile units to be

~~TOP SECRET~~

[REDACTED]

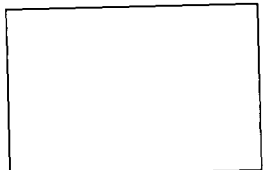


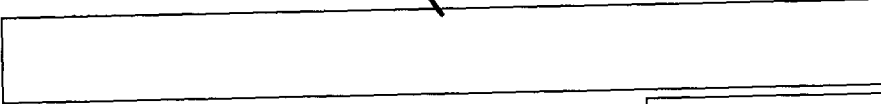
deployed when the war begins. These sectors must be tied in with the disposition of the zones of cover established for army and front installations, deployment areas of front troops, and home airfields of fighter aviation. When selecting siting areas, one must take into account the likelihood that the enemy may create extensive zones of radioactive contamination.

The projected sectors must provide for the dispersed positioning of the battle formations of the surface-to-air missile units and subunits and have an adequately developed network of motor vehicle roads suitable for maneuver within the areas and for the delivery of materiel to the launch sites, and also natural camouflage properties facilitating the concealment of the battle formations of the surface-to-air missile units, as well as the most suitable hydrogeological conditions for preparing earthworks.

In our opinion, special attention must be devoted to the preparation, while still at peace, of well-made motor vehicle roads which ensure the rapid movement of the surface-to-air missile units to be deployed from permanent garrison areas to siting areas at any time of the year. Existing roads will be used for this, and so will routes prepared to support the deployment of front troops. It is advisable to prepare alternate routes, should zones of radioactive contamination have to be bypassed.

In the plan of the offensive operation it is necessary to include, first of all, the engineer support of the surface-to-air missile units which will cover the deployment areas of the front troops. In doing so, it is advisable to provide for the accomplishment of engineer measures to carefully camouflage the siting areas and launch sites of both the on-alert surface-to-air missile units and subunits and those being deployed, with extensive exploitation of natural camouflage features and modern camouflage means which ensure the concealment of positions from enemy optical, radar, and infrared direction finding means of observation. In accordance with the plan of operational camouflage of front troops, engineer measures to prepare and maintain dummy siting areas and launch sites for surface-to-air missile units and subunits can be carried out in peacetime.





During the offensive operation of the front, engineer support of the combat actions of surface-to-air missile units will be carried out under conditions of the enemy's use of nuclear attack means, of his creation of extensive zones of radioactive contamination, and of the relatively frequent shifting of siting areas and launch sites by surface-to-air missile units and subunits. Here, the primary task of engineer support will be to create conditions for the surface-to-air missile units to maintain their constant combat readiness, to successfully conduct combat actions, and to be protected against the effects of enemy nuclear attack means.

During an operation, engineer troops of armies and of a front prepare the siting areas of the surface-to-air missile units, support their maneuver from one siting area to another, prepare the disposition areas of the surface-to-air missile technical bases, and prepare routes for the maneuver of surface-to-air missiles; and furthermore, they can carry out engineer measures connected with elimination of the aftereffects of enemy nuclear strikes and they can carry out work on camouflage.

In an operation when the troops are advancing rapidly, the army surface-to-air missile units will have to be provided with a change of siting areas every day, and the surface-to-air missile units subordinate to a front every one or two days. However, only a limited time can be made available for the preparation of siting areas. This is dictated by the necessity of locating the siting areas a short distance away from the front line and also of organizing area coverage considerably before the installations to be covered are positioned in these zones. By the time a position is occupied by a surface-to-air missile subunit, we must have completed at it the work which makes it possible to conduct combat actions and which provides antinuclear protection for the combat equipment and for the personnel carrying out the launch of surface-to-air missiles.

It follows from what has been said that the engineer preparation of the siting areas of army and front surface-to-air missile units must be accomplished in limited periods of time during an offensive operation. Thus, when front troops are advancing at a rate of up to 100 kilometers a day and there is a need to initially locate the siting areas of army missile units



20 to 30 kilometers from the front line, not more than four to five hours can be allocated to the preparation of each of these areas. Given the condition that the siting areas of surface-to-air missile units subordinate to a front must be located not more than 50 to 60 kilometers away from the front line by the time their engineer preparation is completed, only eight to ten hours in all will be allocated for their preparation.

If surface-to-air missile units subordinate to a front will be located in the same siting areas a longer period of time (one to two full days), this will allow us to carry out engineer measures strengthening the antinuclear protection of the personnel -- to prepare slit trenches and dugouts.

An important problem of the subject under discussion is to determine the minimum necessary volume of engineer measures which should be accomplished when siting areas are being prepared in the course of a front operation.

Several exercises where we worked out the problems of engineer support for surface-to-air missile units were based on the principle of accomplishing the complete volume of works without first distinguishing those which support the conduct of combat actions by these units and the protection of their combat equipment and personnel carrying out the launch of surface-to-air missiles.

In our opinion, a like principle forms the basis of several official publications that provide, in particular, for the accomplishment of the engineer works for preparing a siting area in three to five full days,\* and it also underlies the requirements to carry out the most complete sheltering of the personnel and equipment of surface-to-air missile units.\*\* These rules do not fully correspond to conditions when operations are conducted at a rate of up to 100 kilometers a day. The striving to shelter all personnel, equipment, and motor transport which are present in surface-to-air missile units will lead to an increase in the volume of engineer work when a siting area is

-----  
\* Recommendations on the Engineer Preparation of the Siting Area of a Surface-to-Air Missile Regiment, Publication of the Directorate of the Chief of Engineer Troops of the Ministry of Defense, 1960, pages 4-5, 53-54.

\*\* Information Collection of the Engineer Troops, No. 94, 1961.



~~TOP SECRET~~

[REDACTED]

[REDACTED]

Page 9 of 17 Pages

prepared and to an increase in the time required to accomplish the work, with these amounts and times frequently becoming unrealistic.

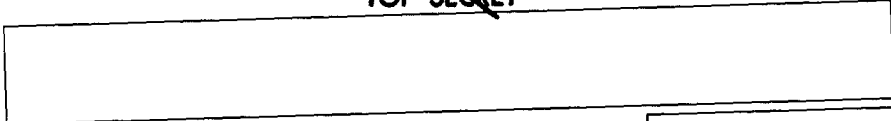
However, in our opinion, it seems expedient to first of all shelter only the combat equipment and personnel that directly carry out the launch of surface-to-air missiles, and then, if forces, means, and time are available, one can prepare shelters for the remaining personnel and covered positions for the equipment.

Full-volume engineer preparation of siting areas and launch sites as recommended above can evidently be carried out in peacetime only for the surface-to-air missile units and subunits on alert. But in the course of an offensive operation, when preparing the siting areas of army and front surface-to-air missile units, it will be advisable to accomplish only the first-priority work which ensures the constant combat readiness of the these units and their successful conduct of combat actions, and which also ensures the protection of only that combat equipment and those personnel participating in the launch of surface-to-air missiles.

The volume of first-priority earthworks in the engineer preparation of the positions of a separate army surface-to-air missile battalion can, according to our calculations, be described as follows: preparing three pits for the vans of the missile guidance station -- 300 cubic meters of soil; preparing six emplacements for the launchers -- 1,800 cubic meters; constructing two protective shelters at the command post -- 200 cubic meters; preparing three slit trenches -- 30 cubic meters; in all -- 2,330 cubic meters of soil. Furthermore, it is necessary to prepare a route up to five kilometers long for the maneuver and delivery of missiles. The jobs mentioned can be accomplished in four to five hours (before the battalion arrives at the position) by the forces of an engineer position preparation company, which has an output amounting to from 500 to 600 cubic meters an hour. From this it follows that it does not seem possible to call upon the personnel of the battalion for performance of the first-priority works to prepare the position. Only after the battalion arrives at the position can a portion of its personnel be called on to prepare an additional number of protective works -- slit trenches and dugouts.

~~TOP SECRET~~

[REDACTED]

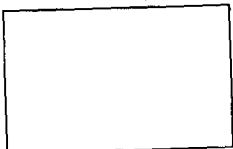


During a front offensive operation, the maneuver of an army surface-to-air missile regiment can be carried out with a change of siting area by groups of three batteries each. In our opinion, the volume of first-priority works in the engineer preparation of the siting area of an army surface-to-air missile regiment will amount to: preparing positions for six surface-to-air missile batteries (24 shelters, six dugouts, ten slit trenches) -- 5,800 cubic meters of soil; preparing technical positions (15 shelters, three dugouts, five slit trenches) -- 1,200 cubic meters; preparing the command post (three shelters, three dugouts, four slit trenches) -- 500 cubic meters; in total (42 shelters, 12 dugouts, 19 slit trenches) -- 7,500 cubic meters of soil. Furthermore, it is necessary to construct 70 kilometers of road (20 percent of them by repairing and restoring existing roads or by laying cross-country routes) in order to provide for the maneuver and delivery of missiles.

An engineer position preparation battalion can accomplish this work in a period of five hours. If the siting area is prepared for a group made up of three launch batteries, then an engineer position preparation company can prepare it also in a period of five hours. This same company in the course of a full day can prepare one more siting area for a second group of launch batteries, technical battery, and command post of the army surface-to-air missile regiment. The data set forth show that by maneuvering a regiment in groups of three batteries each, more favorable conditions are created for engineer support, which allow the complement of engineer units allocated for this purpose to be reduced.

In the course of an operation, surface-to-air missile regiments subordinate to a front may carry out a maneuver on the average every other day. Because of this, an engineer position preparation company is capable of successively preparing siting areas for two front surface-to-air missile regiments operating on the same axis.

During a front offensive operation, several front and army surface-to-air missile technical bases may be deployed to provide for the preparation of surface-to-air missiles and their delivery to the siting areas of the front surface-to-air missile units. The disposition areas of these bases will be changed every one or two days. Because of this, it is advisable to have the engineer



~~TOP SECRET~~

Page 11 of 17 Pages

preparation of the areas done by organic engineer subunits and the personnel of the bases in the volume of first-priority works that ensure the protection of the special equipment, the surface-to-air missiles, and the personnel carrying out the preparation and checking of the surface-to-air missiles.

Support for the maneuver of army and front surface-to-air missile units from one siting area to another will be carried out in accordance with the plan worked out by the staffs of the operational formations with the participation of the corresponding chiefs of the rear and chiefs of engineer troops. A special feature of front surface-to-air missile units is the fact that for maneuvering they utilize roads for a short time and most often for a one-time passage of their columns. And the delivery of surface-to-air missiles from surface-to-air missile technical bases to the siting areas of surface-to-air missile units can be carried out, with properly organized traffic control, on army and front roads.

Thus, the road requirements of front surface-to-air missile units can be met basically by using roads prepared in support of the advancing troops. Army and front engineer troop forces may carry out only the work to restore and repair the individual road sections connecting the siting areas with the main roads, maintenance of which is done by front forces, while traffic over them is monitored by the front staff. This may require from two to three engineer road companies, one company per army axis.

During an offensive operation, special attention should be devoted to providing for the unimpeded maneuver of surface-to-air missile units, for the uninterrupted delivery of surface-to-air missiles to the siting areas, and also for the maneuver of reserves of surface-to-air missiles between the bases and the siting areas. Against the event that extensive zones of radioactive contamination develop, which will considerably complicate the delivery of surface-to-air missiles over motor vehicle roads, it is expedient to select and prepare helicopter landing pads at each new position of a surface-to-air missile battalion and in each disposition area of a front or army surface-to-air missile technical base. Helicopters can provide for the air delivery of missiles and materiel in short periods of time. Calculations show that, for this purpose, it is necessary to have 18 to 20 prepared landing pads every day.

~~TOP SECRET~~

~~TOP SECRET~~

Page 12 of 17 Pages

Besides the maneuver of surface-to-air missile units to new siting areas, the necessity may arise of quickly moving individual surface-to-air missile units out of siting areas which are threatened with heavy radioactive contamination. Engineer support for such a maneuver may be complicated by the presence, in the offensive zone of front troops, of zones with high levels of radioactive contamination, which it will require the allocation of additional engineer subunits -- most often from the front reserve -- to negotiate or bypass.

We must take into account that, when troops are operating by axes, it becomes more difficult to provide for the maneuver of army surface-to-air missile units when they bypass zones with a high level of radioactive contamination of the terrain. In these cases, only those engineer troops which are operating on the given axis can be used.

In providing engineer support of front surface-to-air missile troops, one should pay attention to camouflage of their disposition, especially in siting areas located a relatively short distance from the front line. In order to ensure careful camouflaging of the positions of surface-to-air missile battalions and batteries, it is advisable, above all, to avoid the traditional positioning of launchers strictly in a circle with a radius of 60 to 100 meters, because such a layout gives away surface-to-air missile subunits. One should consider the rational tendency which has appeared recently of disposing launch batteries and battalions on roads not used by the troops. Such a disposition of launch batteries and battalions will undoubtedly promote the camouflaging of front surface-to-air missile units. In doing so, one must avoid a strictly geometric disposition of launchers and components of the missile guidance station at the firing positions. Furthermore, it is advisable to exploit the natural camouflage features (wooded tracts, terrain relief, small inhabited localities, etc.) and to extensively use modern camouflage means, including the new camouflage nets which provide the technical equipment and installations of surface-to-air missile units with the most reliable cover from the observation means of enemy air reconnaissance.

To camouflage the disposition of surface-to-air missile units and subunits, it is also very important to conceal the performance of engineer works. Therefore, it is desirable to

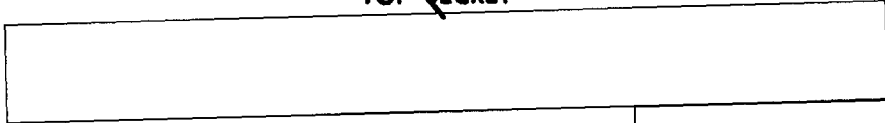
~~TOP SECRET~~

carry out the preparation of the siting areas in the hours of darkness, with careful camouflage of the combat and special equipment as well as of all the protective structures that are to be erected.

In the plan for the operational camouflage of front troops, it is advisable to allot considerable space to the operational camouflage of surface-to-air missile units, for which provisions are made to prepare dummy siting areas, to renew mock-ups in the areas previously set up, to simulate the relocation of surface-to-air missile units, and other measures. When setting up dummy siting areas it is necessary to use prefabricated and demountable fabric mock-ups of surface-to-air missiles, launchers, and other special vehicles, and also to employ corner reflectors, which ensure creating the necessary radar visibility of these areas. Recently we have successfully begun to use metallic paint on the fabric mock-ups. Erecting mock-ups with this paint produces adequate and more plausible radar and optical visibility of dummy surface-to-air missile siting areas. The number of mock-ups of combat equipment must closely correspond to the authorized amount of equipment in the units and subunits. Engineer measures for operational camouflage of front surface-to-air missile units will be accomplished by the forces of these units, with the allocation of front engineer troops.

From an analysis of the overall requirements for engineer subunits by surface-to-air missile units, it is evident that in the course of an offensive operation, in order to prepare the siting areas to the extent required by the first-priority work, and in order to provide for the maneuver of the surface-to-air missile units from one siting area to another, each first-echelon army of the front must be allocated two to three engineer position preparation companies and one engineer road company. The engineer troop requirements of the surface-to-air missile units subordinated to a front may amount to approximately three engineer position preparation companies and two to three engineer road companies.

In the first days of an offensive operation a front may not have its road and traffic control units and large units deployed. Because of this, the responsibility for ensuring the maneuver of the surface-to-air missile units and surface-to-air missile technical bases will be charged to the front engineer troops, and



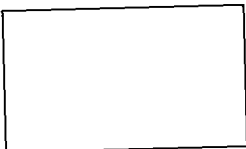
these of necessity will have to be increased in numbers.

Thus, during the first operation of a war's initial period, a considerable complement of engineer troops will be required for engineer support of surface-to-air missile units subordinate to the armies and the front. However, there still may not be an adequate number of engineer troops in the front and armies during the first days of the offensive, as a result of which it will not always be possible at this time to allocate the necessary engineer reinforcements to the surface-to-air missile units.

How is one to get out of this predicament? In our opinion, we should first of all determine the minimum necessary volume of engineer measures without performance of which the surface-to-air missile units cannot conduct combat actions. These measures involve providing for the maneuver of surface-to-air missile units from one siting area to another, as well as within these areas; providing for the delivery of surface-to-air missiles to the siting areas; preparing shelters, dugouts, and slit trenches for the personnel carrying out the launch of surface-to-air missiles and for the control posts; providing for the dispersal and camouflage of warheads and materiel; and checking the areas of launch sites and technical sites and movement routes for the presence of mines and clearing away the mines.

Not included in the reduced volume of engineer measures is the extremely labor-consuming work to prepare shelters for the launchers and components of the missile guidance station. In this case it is appropriate to emphasize that existing types of shelters do not provide the launchers and components of the missile guidance station with adequately effective protection against the effects of a nuclear burst shock wave. Of course, this does not mean that one must completely refrain from constructing shelters for the combat equipment. They can weaken the effect of a shock wave by 25 to 40 percent and also afford reliable protection against the fragments of conventional ammunition. This is confirmed by the experience of the Great Patriotic War.

Believing that the construction of shelters for combat equipment can be omitted from among the number of engineer measures to prepare siting areas, we think it is possible to carry out surface-to-air missile launches from open areas or



~~TOP SECRET~~

Page 15 of 17 Pages

directly from the bed of the roads over which launchers are relocating. Most appropriate for this purpose are roads which are located between the main army and front routes and are not occupied by the attacking troops.

Reducing the amount of engineer work when preparing the siting areas of the surface-to-air missile units in the first days of a front offensive operation will lead to a drastic lowering of the need of surface-to-air missile units for engineer reinforcement.

For the reduced-volume engineer preparation (without shelters for the combat equipment) of the siting areas of army surface-to-air missile units and subunits and in order to provide for the maneuver of these units and subunits, it is required that an engineer position preparation company and an engineer road company be allocated from the complement of army engineer troops. The requisite number of engineer subunits is on hand in the armies in peacetime and can realistically be detailed for the engineer support of the combat actions of the surface-to-air missile units from the very first day of an offensive operation.

Preparation, even at reduced volume, of siting areas of the surface-to-air missile units subordinate to a front requires one to two engineer position preparation companies and one to two engineer road companies, which on the whole amounts to almost the entire number of position preparation and road subunits available to a front in the initial days of a war.

It must be noted that the engineer subunits supporting the combat actions and maneuver of surface-to-air missile units will be located all over the zone of a front, which will complicate control of them if they have been detailed from a single unit, and the more so if from a single engineer large unit. Therefore, one can assign for the engineer reinforcement of surface-to-air missile troops only those engineer units which are supporting the troop grouping of the armies on this axis. However, when front troops are disposed in a single echelon, the engineer support of the surface-to-air missile units subordinate to the front which are forming a zone of cover at a considerable distance away from the line of contact with the enemy will be rendered difficult because of the absence of engineer subunits and units in this zone. At the same time, when front troops are advancing rapidly,

~~TOP SECRET~~

~~TOP SECRET~~

Page 16 of 17 Pages

new siting areas for the surface-to-air missile units will have to be prepared more frequently.

Taken together, all of this confirms the necessity, in the surface-to-air missile units subordinate to armies and fronts, of having organic engineer subunits capable of fulfilling the reduced-volume engineer measures and supporting the combat actions and maneuver of surface-to-air missile units in the course of an offensive operation.

For the purpose of increasing the independence of surface-to-air missile units in matters of engineer support, of reducing the time needed for the engineer preparation of the siting areas of these units, and of providing for their rapid movement during an operation, it seems expedient to incorporate engineer/combat engineer companies into the T/O of army and front surface-to-air missile regiments and to incorporate engineer/combat engineer platoons equipped with high-output earth-digging devices into the T/O of the separate surface-to-air missile battalions. The availability of T/O engineer/combat engineer subunits in front surface-to-air missile units will allow us to more successfully support their combat actions during an operation.

By the time the immediate task is accomplished by the troops of the front, the full-strength manning of army engineer/combat engineer brigades with engineer units arriving from the interior of the country or mustered in the border military districts may be completed in the army. By this same time, engineer large units and units subordinate to the front will probably have arrived from the interior of the country.

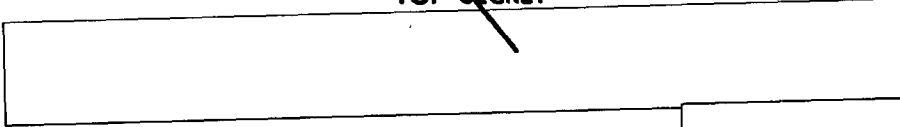
During the time when the subsequent task of a front's initial offensive operation is being fulfilled, one can expect the complement of engineer troops in the armies and in the front to be reinforced. This circumstance will allow us to increase the range of engineer measures for support of the combat actions of surface-to-air missile units and their antinuclear protection, including the preparation of shelters for combat and special equipment.

Thus, during the initial offensive operation of a front it is necessary, in our opinion, to prepare the siting areas in the

~~TOP SECRET~~

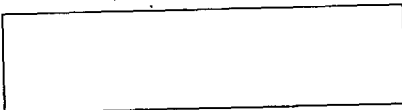
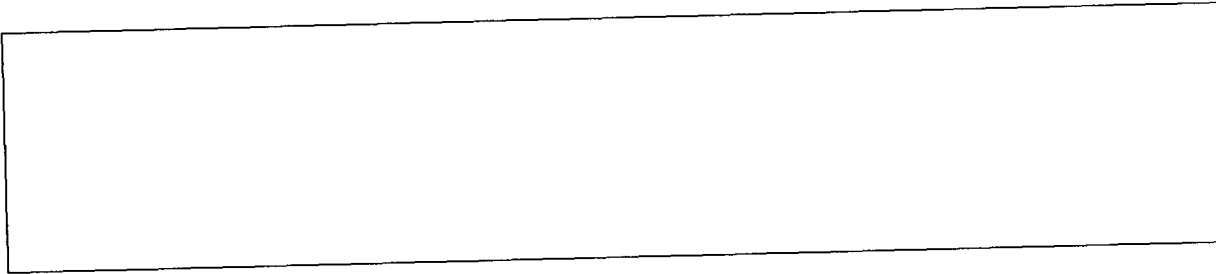


~~TOP SECRET~~



Page 17 of 17 Pages

volume of work which ensures the constant combat readiness of the surface-to-air missile units, the successful conduct of combat actions by them, and antinuclear protection, above all, of the combat equipment and personnel carrying out the launch of surface-to-air missiles. At the same time, we should investigate all possibilities of accomplishing the engineer support of the surface-to-air missile troops of the armies and front in the shortest periods of time.



~~TOP SECRET~~

