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CENTRAL INTELLIGENCE AGENCY
WASHINGTON, D.C. 20505

19 March 1975

MEMORANDUM FOR: The Director of Central Intelligence

SUBJECT : MILITARY THOUGHT (USSR): Air Defense 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 deals with the control of air defense in a front operation, and with coordination of the air defense systems of the Warsaw Pact members. The authors emphasize the weaknesses of radio sets used in control, and the need for timely reporting to air defense command posts. This article appeared in Issue No. 1 (80) for 1967.

2. Because the source of this report is extremely sensitive, this document should be handled on a strict need-to-know basis within recipient agencies. For ease of reference, reports from this publication have been assigned

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William E. Nelson
Deputy Director for Operations

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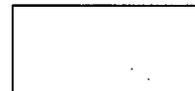
Deputy Director of Central Intelligence
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Intelligence Information Special Report

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COUNTRY USSR

DATE OF INFO. Early 1967

DATE 19 March 1975

SUBJECT

MILITARY THOUGHT (USSR): Air Defense in a Front Offensive Operation

SOURCE Documentary

Summary:

The following report is a translation from Russian of an article which appeared in Issue No. 1 (80) for 1967 of the SECRET USSR Ministry of Defense publication Collection of Articles of the Journal "Military Thought". The authors of this article are General-Mayor A. Franchuk and Lieutenant Colonel G. Pomelnikov. This article deals with the control of air defense in a front operation, and with coordination of the air defense systems of the Warsaw Pact members. The authors emphasize the weaknesses of radio sets used in control, and the need for timely reporting to air defense command posts.

End of Summary

Comment:

There is no information from available sources on Lieutenant Colonel Pomelnikov. General-Mayor A. Franchuk was identified as the commander of the air defense troops of the Odessa Military District in 1967. The SECRET version of Military Thought was published three times annually and was distributed down to the level of division commander. It reportedly ceased publication at the end of 1970.

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Air Defense in a Front Offensive Operation

by

General-Mayor A. Franchuk
Lieutenant Colonel G. Pomelnikov

Questions of air defense in a front offensive operation conducted to the entire depth of a theater of military operations, and which were examined in an article by General-Mayor V. Rozhdestvenskiy and Colonel V. Bilaonov*, are timely and have great theoretical and practical significance.

We have no basic objections to the fundamental propositions propounded in the article, but we feel compelled to dwell on two questions of this problem.

The control of air defense forces and means in the operation under review has a number of features, some of which present problems and urgently require certain changes both in the organization and in the technical equipping of the troops.

As is known, at the present time the basic means of control at the disposal of the chief of the front air defense troops are the R-118B (R-118BM-3) radios with a range of 200 kilometers for radiotelegraph and printer telegraph and 30 kilometers for radiotelephone, while at night the stability of communications significantly decreases. The R-118BM-3 radio is susceptible to all types of jamming. For this reason, in the interests of assuring stable control of air defense troops in a front offensive operation, it is necessary to bring the capabilities of communications into accord with the depth of the operation.

* Collection of Articles of the Journal "Military Thought", 1966, No. 2 (78).

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The matter of communications for warning about an air enemy is also analogous. For the establishment of warning radio nets, the command post of the chief of the front air defense troops has two R-102 radios possessing somewhat greater ranges than the R-118 radio (a range of 600 kilometers for radiotelegraph and 100 kilometers for radiotelephone). However, the low load capacity of the radiotelegraph channel (five or six messages per minute) and the large amount of distortion during transmission and reception, for quite some time now have made it necessary to change over to radiotelephone. In turn, as is apparent from the data presented, the range of radios in radiotelephone transmission decreases by five to six times. Hence, the conclusion suggests itself that the air defense troops of the Ground Forces need new types of radios with a great radiotelephone range and, which is very important, a high resistance to jamming.

And we believe that the question of control of air defense troops when repelling low altitude enemy air attacks has even greater significance. The P-15 radar possesses the best indices (60 to 70 kilometers at an altitude of 500 meters) in the detection and tracking of low-flying targets. The radar detects a target with an air speed of 800 to 900 km/hr four to five minutes before its appearance over the forward edge of our troops. Of this time, using the existing so-called "manual" method of processing and recording air situation data, two to three minutes are expended on passing the reports from the radar subunit to the command post of the chief of air defense troops. These data appear on the plotting boards of the command posts of the active means of air defense with a delay of an additional minute. It is completely clear, that under such conditions the centralized control of active air defense means becomes extremely difficult and ineffective.

It appears to us that even in peacetime it is necessary to thoroughly work out and substantiate basic propositions for the decentralization of control of active air defense means when repelling low altitude enemy air attacks. It must be taken into consideration, that under these conditions special significance is attached to the timely receipt by command posts of active air defense means of

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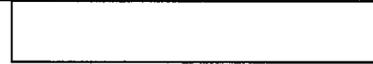
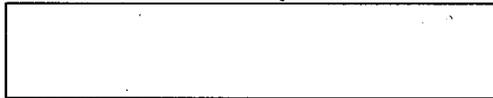
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reporting about the actions of their own aviation. The reporting transmitted to the command posts of surface-to-air missile and antiaircraft artillery regiments must contain data on the time, directions, and flight altitudes of our aircraft; the time of their crossing the zones of surface-to-air missile troops and antiaircraft artillery and the expected time of return to their own airfields; and data on the areas and altitude of duty in the air, if these are envisaged. This reporting must be received by the command posts of surface-to-air missile and antiaircraft artillery units continuously in accordance with changes in the decisions adopted and the actual actions (air situation) of our aviation. Unfortunately, up to now it has not been decided by whom, how, and by which means reporting on the actions of our aviation must be transmitted to the command posts of active air defense means. To be specific, it is not only a matter of notification concerning the flights of our aircraft, but, primarily, reporting on planned and actual flights of our aircraft, even if they are not located at that given time within the detection zone of our radars. We consider it necessary to have a special group for reporting on the actions of our aviation at the command post of the chief of the front air defense troops, and to have groups with communications means and individual plotting boards for the reception and processing of this reporting at the air defense command posts of armies and command posts of active air defense means. One or two officers of the air army command post must be included within the group for reporting on the actions of our own aviation at the front air defense command post. Naturally, the establishment of these groups requires the development of new code tables and procedure charts assuring the dependable encoding of secret information, such as that on the flights of our aviation.

The organization of coordination between the front air defense system and the air defense system of the country (Warsaw Pact countries). In case of a break of 1000 to 1200 kilometers between the systems of the front air defense and of Air Defense of the Country, the existing means of communication can not guarantee stable coordination. A resolution of this situation, in our opinion, can be to have coordination groups with communications means at one or two intermediate lines designated by the chief of the front air

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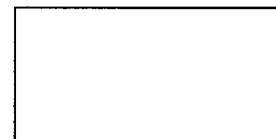
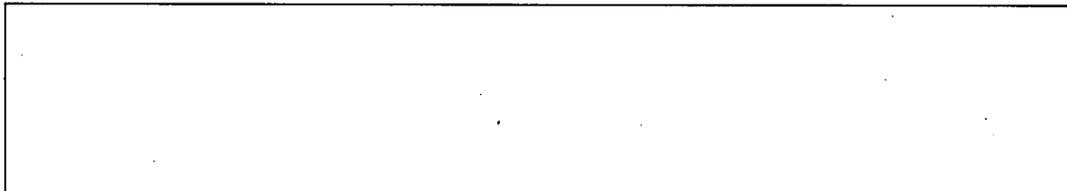
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defense troops and the commander of formations (large units) of the Air Defense Forces of the Country at the forward edge of the battle area; and these lines should be designated during the planning of a front offensive operation.

Questions on the organization of coordination with the air defense systems of allied countries also await resolution. The principles adopted in peacetime of coordination along the line of central command posts of Warsaw Pact countries and of command posts of border air defense formations can not be mechanically applied to the conditions of an offensive operation. The procedure tables employed in the coordination system are unwieldy and require much time for the encoding and decoding of information. In addition, over a long period of operation in peacetime, the axis officers of command posts of formations (large units) of the Air Defense of the Country have developed a mutual understanding, of which the officers of the command post of the chief of the front air defense troops are deprived. For this reason, it seems advisable to allocate to the central command post (command posts of air defense large units) of an allied country, naturally with its consent, operations groups from the staff or command post of the chief of the front air defense troops. These groups will play an especially large role if the front troops, as a result of the situation which has developed, will carry out a regrouping on the territory of Warsaw Pact countries. The operations groups must have communications means and coding equipment, or the coordination plan must provide for supplying them with means of communication with coordinating air defense central command posts of allied countries.



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