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CENTRAL INTELLIGENCE AGENCY
WASHINGTON, D.C. 20505

14 July 1978

MEMORANDUM FOR: The Director of Central Intelligence
FROM : John H. Stein
Acting Deputy Director for Operations
SUBJECT : MILITARY THOUGHT (USSR): Communications
in the Initial Period of War

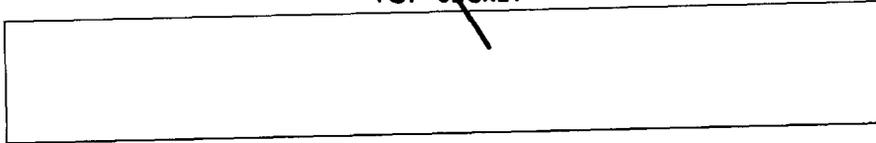
1. The enclosed Intelligence Information Special Report is part of a series now in preparation based on the SECRET USSR Ministry of Defense publication Collection of Articles of the Journal "Military Thought". This article is a review of a book which traces the conditions and development of communications in the USSR before the Great Patriotic War and then proceeds to a discussion of the problems of communications in the initial period of a future war, dwelling on matters of control and the organization of communications. For this the author of the book proposes establishing an organ to coordinate the development and improvement of nation-wide communications to satisfy both peacetime and wartime needs. This article appeared in Issue No. 1 (62) for 1962.

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

John H. Stein

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Intelligence Information Special Report

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COUNTRY USSR

DATE OF INFO. Early 1962

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DATE

14 July 1978

SUBJECT

MILITARY THOUGHT (USSR): Communications in the Initial Period of War

SOURCE Documentary

Summary:

The following report is a translation from Russian of an article which appeared in Issue No. 1 (62) for 1962 of the SECRET USSR Ministry of Defense publication Collection of Articles of the Journal "Military Thought". The author of this article is Colonel V. Kanonyuk. This article is a review of a book which traces the conditions and development of communications in the USSR before the Great Patriotic War and then proceeds to a discussion of the problems of communications in the initial period of a future war, dwelling on matters of control and the organization of communications. For this the author of the book proposes establishing an organ to coordinate the development and improvement of nation-wide communications to satisfy both peacetime and wartime needs.

End of Summary

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Communications in the Initial Period of War*

by

Colonel V. KANONYUK

The success of armed combat in a future war, especially in its initial period, will depend on precise and continuous direction over combat actions at all levels of control -- from the General Headquarters of the Supreme High Command to the units and subunits. Continuous troop control can be achieved only when continuously operating communications are available. That is why I.T. PERESYPKIN's work, Communications in the Initial Period of War, is so timely and valuable in the practical sense.

The author of the work is one of the major military leaders of the Soviet Armed Forces. For more than 20 years he had direct command of the communications organization of our country and headed the communications troops of the Soviet Army.

His wealth of personal experience and also the use of numerous materials from the archives have enabled him to thoroughly examine the status and development of communications in our country in the years preceding the Great Patriotic War and also to analyze the status and development of the communications equipment and organization in the country and in the Armed Forces during the war, especially in its initial period.

Based on historical research and on an estimate of the nature of armed combat in a future war, the author has formulated the key tasks which are confronting communications and he has also investigated the main conditions for their reliable and continuous operation in the initial period of a war.

* I.T. PERESYPKIN, Communications in the Initial Period of War, Moscow, Military Publishing House, 1960, 168 pages.

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The book being reviewed has successfully combined historical research with the working out of urgent present-day problems.

The work begins with an analysis of the status of communications in the USSR on the eve of the Great Patriotic War. Concerning the nation-wide communications, the author rightly remarks that on the eve of the war they were far from satisfying even the peacetime requirements of our state, and even less so those of wartime, and in many respects they were lagging behind the development of communications in the major capitalist countries.

At the beginning of the war, the Soviet Union's network of wire communications was made up of overhead lines having low survivability. Buried main cable lines were completely absent, whereas at that time by 1940 in England 88.3 percent of the main lines had been cabled, in the US 80.5 percent, and in Germany 77.2 percent (page 15).

A specific feature of the Soviet Union's wire network, as the author emphasized, was its radial layout in which the telephone communications, and to a considerable degree the telegraph communications of Moscow, and of the republic, krai, and oblast centers with the outlying areas were carried out primarily along lines that spread out radially from these centers. As a result, the operation of the country's entire system of communications was very unstable, because in case any of the radial lines were damaged, communications with all of the administrative centers situated along that radius would be completely disrupted. Thus, when only one of the open wire circuits (No. 45) on a southern link was damaged, Moscow was deprived of communications with Baku, Tbilisi, and Yerevan, that is, with all of the Transcaucasian republics as well as with Voronezh and Rostov. The possibility of establishing communications along alternative axes was nonexistent.

The author asserts that before the war the deficiencies of the radial layout of the wire communications network was well understood, however, it was extremely difficult to correct because this system "...was established in essence from the beginning of the development of wire communications in Russia and then continued to be developed according to tradition following the very same trend in the USSR (page 14)."

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A very significant deficiency was our country's poorly developed interurban telephone communications and deficient employment of high-quality telephony and voice-frequency telegraphy equipment. Just how bad the situation was can be judged by the figures quoted in the book. In 1940, out of 135 oblast centers, 26 had no telephone communications at all with Moscow, 94 had communications for not more than three hours a day, and only with 15 centers were telephone communications maintained around the clock (page 17).

The author also notes the many weak points, from the military point of view, in the development of our country's radio communications main lines.

The author considers that one of the causes of the country's deficient preparedness for war with respect to communications was the inadequate allocation of means and material resources. In 1938, for capital construction in communications, 375.1 million rubles were allocated, in 1939 279.9 million rubles were allocated, in 1940 258.7 million rubles were allocated, and in 1941 this appropriation was fixed at a total of only 200 million rubles, that is, practically half the amount of 1938 (page 20).

The author has come to the conclusion that lowering the appropriations for the development and improvement of communications was incompatible with the tasks of strengthening the defense of the country with respect to communications during the period of the growing threat of a military attack on the USSR, and constituted a grave miscalculation in the matter of preparing the country for war.

There were also grave deficiencies in the training of communications troops. In the author's opinion, one of the very major deficiencies in organizing communications troops before the war and in training them to provide for the control of operational formations was the absence at the beginning of the war of communications units authorized to the fronts and armies in wartime. It is known that in the initial days of the war many of the combat-effective large units and units of our army were unable to offer organized resistance to the enemy because of the loss of communications.

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The work devotes considerable space to an analysis of the status of the communications means industry and of the supplying of these means to the Soviet Army. The domestic communications means industry, made up primarily of old factories from prerevolutionary Russia, could not cope with the tasks of providing modern communications means both to the country's national economy and also to the Armed Forces. It lagged behind that of the capitalist countries in the volume of production and in the level of development of the equipment (page 28). The total number of factories engaged in producing communications means was insufficient and their geographical locations were poor. Out of 16 factories producing basic communications equipment, eight were in Leningrad, four in the Moscow area, and one each in Gorkiy, Kharkov, Voronezh, and Kaluga (page 30). In the communications means industry backup factories were absolutely nonexistent.

In the years 1938 to 1940, command levels repeatedly had the subject brought up before them of increasing the productivity of the communications means industry by constructing new factories and by developing the existing ones. However, this problem did not receive important resolution at that time.

As a result of the unfortunate situation in the production of equipment, our Armed Forces entered the war with a vast shortage in authorized means of communications. The average state of supply of the key means of communications on 1 June 1941 amounted to the following: in radio sets of the General Staff network (RAT) -- 30 percent, in front network radio sets (RAF and the 11AK, 2A, and 3A that were replacing it) -- 46 percent, in charging sets -- 45 percent, in Baudot telegraph equipment -- 69 percent, in ST-35 telegraph equipment -- 35 percent, in telegraph cable -- 30 percent, and so on (page 33). The state of supply of the western border military districts was even lower. For example, the Leningrad Military District was only 30 percent supplied with such important radio sets as the RAF radio set, the Western Military District 27 percent, and the Kiev Military District 30 percent (page 34).

One of the major deficiencies in preparing the country for war was, in the author's opinion, the lack of previously prepared protected control posts for the Supreme High Command of the Armed Forces and for the staffs of the future fronts (page 40). In truth, it seems to us, in the past war this did not have any

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significant effect on the stability of control of the Armed Forces. In a future war the absence of previously prepared control posts may have an extremely unfortunate effect on the course of the war in the initial period.

The principal cause of our country's lag in developing communications is seen by the author in the underestimation of "the importance and great role of communications among other problems of national importance (page 45)." He frankly states: "...communications were considered to be a secondary matter. In GOSPLAN, in the People's Commissariat of Defense, and in the General Staff the subject of communications was underestimated (page 45)." From this sad experience of the past it is very important to arrive at correct conclusions for the future.

In the initial period of the war the status of troop control was also negatively affected by the fact that the General Staff did not have at its disposal communications large units and units designated for operational servicing and developing of the nation-wide communications network that was being utilized in support of the military command. The very first days of the war revealed the imperfection of the system for directing communications at the operational-strategic level of control. The Communications Directorate of the Red Army, the Communications Department of the Operations Directorate of the General Staff, and the People's Commissariat of Communications were simultaneously in charge of providing communications to the General Headquarters of the Supreme High Command at the center (page 62). As the author emphasizes, this multiple bureaucratism in the leadership produced much confusion when it came to resolving various problems of communications, especially in the outlying areas, and was undoubtedly one of the causes for the very difficult situation in which the communications of our Armed Forces found itself in the initial days of the Great Patriotic War (page 63).

The reason for unsatisfactory troop control in the initial period of the war, as the book convincingly demonstrates, was the underestimation by commanders and staffs of radio communications, which are the most reliable means of control in mobile types of combat. Order No. 0243 of 23 July 1941 of the People's Commissar of Defense played an important part in overcoming this deficiency.

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The author's statements concerning the new problems of organizing communications, which were worked out during the war, are of undoubted interest. First and foremost, these pertained to providing the ground troops with communications with the aviation and with the Navy, establishing communications in operations for the encirclement and destruction of the enemy, disposing communications means in depth when relocating control posts, introducing personal radio sets for commanders, organizing special-purpose communications centers, and others (pages 78-79).

Touching upon the organization and combat employment of communications troops, the author shows the difficulties which arose with the deployment and activation of communications units in the first months of the war and the ways these difficulties were subsequently overcome. In the first year of the war alone more than 1,000 different communications units were activated. These units had the functions of constructing new communications facilities, carrying out rehabilitation work, carrying out the operating-technical servicing of communications lines and centers, and ensuring the continuous operation of the communications of the General Headquarters of the Supreme High Command and of the staffs of fronts and armies (page 85).

At the beginning of the war great difficulties arose with the production of communications means and with the supplying of them to the Armed Forces. The author frankly states: "The beginning of the war clearly revealed that our electrical industry was in no condition to provide the active army with communications means in wartime (page 88)." The facts set forth in the book confirm the acuteness of the situation concerning the production of communications means in the initial period of the war. Only thanks to the decisive measures adopted by the Government, the State Committee for Defense, and the heroic efforts of the workers of the country's rear was it possible during the course of the war to rectify the situation and to achieve a significant increase in the volume of production of the radio sets and communications means that were extremely necessary to the troops. However, as the author justly emphasizes, the arduous experiences and immense difficulties which we had to endure during the Great Patriotic War with respect to providing continuous communications and stable troop control, and which were the result of our backwardness and unpreparedness regarding many problems of communications, must not be forgotten.

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Proceeding to a discussion of the problems of communications in the initial period of a future war, the author dwells on the special features of troop control and of the organization of communications. He believes that one of the conditions for achieving continuous control of the Armed Forces and for ensuring uninterrupted communications in the initial period of a war will be the prior preparation and equipping of protected main and alternate control posts for the Supreme High Command, the formations and large units of the rocket troops, and the staffs of the groups of forces and border military districts (future front staffs).

Extremely important factors in ensuring continuous control of armed combat in the initial period are: a high level of development of the country's nation-wide communications, the preparation in the communications aspect of the most probable theaters of military operations, the level of development of the communications of the Armed Forces themselves, and the constant combat readiness of communications troops (page 109). That being the case, it was emphasized that under conditions of a missile/nuclear war, of equally great importance is the preparation, in the communications aspect, of both the territory of the border areas and also the deep rear of the country (page 143).

The country's degree of readiness for future war as concerns communications will also depend on the level of development of communications equipment and the preparedness for war of the domestic communications means industry. The author arrives at the conclusion that in order to effectively employ communications forces and means in a future war, there must be strictly centralized direction over all communications matters of the country and of the Armed Forces (page 140). We also share fully the author's conclusion concerning the fact that in the Ministry of Defense in peacetime a single competent organ should be engaged in directing communications.

A subject worthy of special attention which the author has raised is the one concerning the establishment in our country of a highly competent and authoritative organ to coordinate all plans and efforts and to coordinate the direction of such an important governmental affair as developing and improving the nation-wide communications so as to be able to satisfy both the

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requirements of peacetime and also of wartime.

The variety and complexity of tasks which stem from the problems of providing control and communications in the initial period of a war require that the theory of the organization of communications be developed further. At the present time, as the author justly states, the development of the theory of the organization of communications in our Armed Forces lags behind the rapidly developing communications equipment and furthermore, the available theoretical developments concerning the organization and providing of communications at the highest levels of control are being introduced with extreme slowness into practice.

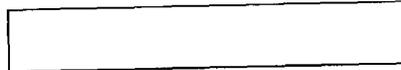
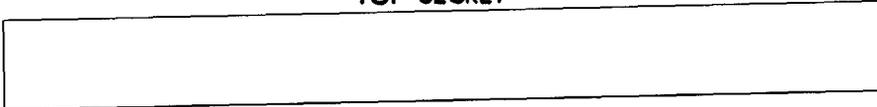
In conclusion, it is necessary to emphasize that the work under review has made a considerable contribution to the matter of developing the theory of the organization of communications, although it is not free of some shortcomings. In particular, in our view, the role of radio communications at the operational-strategic level of control has been inadequately covered, and the subject of the work of the organs of the Ministry of Communications in providing communications in support of the military command has been examined very superficially. The author only in passing touched upon the topic of the wartime role played by government high-frequency communications and of the way cooperation was implemented between these communications units and the communications units of the Soviet Army. Questions that were not at all touched upon were those of ensuring secure communications, and stemming from this, the requirements for radio camouflage as well as those for the employment of communications means within the overall system of operational camouflage measures.

However, the presence of the deficiencies noted does not belittle the merits of the work as a whole. The book that has been reviewed is one of the most detailed investigations in the field of the organization of control and communications that has appeared in our country during the postwar period.

We think that this work will be read with interest by generals and officers of communications troops and also by combined-arms chiefs and command personnel of the central apparatus of the Ministry of Defense, by responsible party and

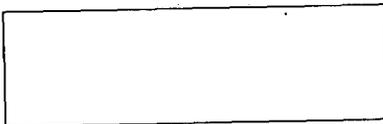
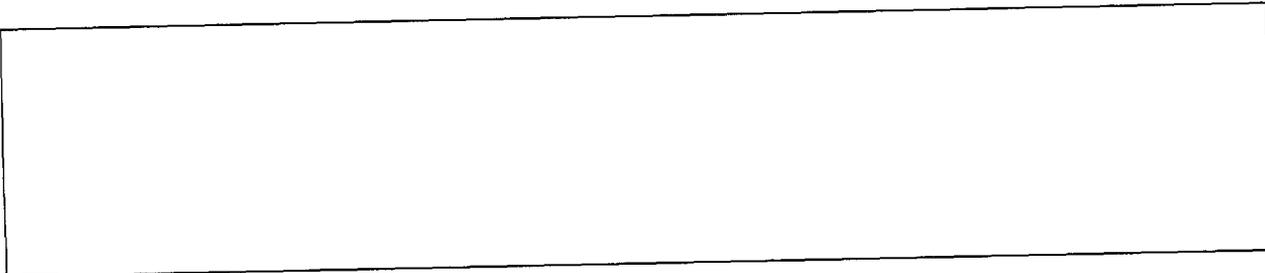
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Soviet officials who are in charge of the development of communications and of the radiotechnical industry in our country. Acquainting oneself with I.T. PERESYPKIN's book gives one the opportunity of understanding more profoundly the complexity, scope, and content of the tasks in the field of the development of the communications of our country and of our Armed Forces, taking into consideration the requirements to strengthen the defense capabilities of our Homeland.



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