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POSTWAR IDEOLOGICAL INDOCTRINATION WORK REVIEWED

Moscow VOYENNO-ISTORICHESKIY ZHURNAL in Russian No 9, Sep 77 signed to press 25 Aug 77 pp 3-15

[Article by Vice Adm A. Sorokin, deputy chief, Main Political Directorate of the Soviet Army and Navy: "Ideological Indoctrination in the Armed Forces in the Postwar Period"]

[Text] Like all Soviet people, the fighting men of the army and navy, in close solidarity around the Communist Party, are greeting the 60th anniversary of the Great October Socialist Revolution in a worthy manner. Preparations for celebration of this portentous date have coincided with an arousing event in the life of our country, the general discussion of the draft of the new USSR Constitution, the constitution of a developed socialist state.

The content and world historical importance of the new basic law are deeply and thoroughly revealed in the report by Comrade L. I. Brezhnev, General Secretary of the CPSU Central Committee and chairman of the Constitutional Commission, at the May 1977 Plenum of the Party Central Committee. This report is an outstanding party political and ideological-theoretical document.

Both the draft of the new Constitution and L. I. Brezhnev's report have been greeted by the Soviet people and our fighting men with a feeling of profound satisfaction and warm, enthusiastic approval. The personnel of the Soviet Armed Forces support party policy completely and fully and respond to its tireless concern for the well-being of our country and its security with new advances in combat and political training and insuring a higher level of vigilance and combat readiness.

The basis of selfless performance of military duty by our servicemen is their high ideological level. It was emphasized at the 25th CPSU Congress that the communist conviction of Soviet people is a fusion of their knowledge, beliefs, and practical actions. When studying the revolutionary creative thought of Marxism-Leninism and the materials and decisions of the 25th CPSU Congress fighting men of the army and navy get to the essence of the party's constructive activity, develop

a deep understanding of their social responsibility to the party and the state, and take a politically conscious attitude toward performance of daily tasks.

The party has devoted unflagging attention to bolstering ideological-political indoctrination of Soviet Army and Navy personnel and improving the fundamental forms of this work in all stages of Soviet military building. In the postwar period this work has become even more important. This is the result of numerous factors: the continued growth of the party's leadership in Soviet society and the Armed Forces, the new requirements for moral-political and psychological training of troops in connection with the appearance of nuclear missiles and other modern weapons, the necessity of resolute struggle against bourgeois ideology, and the rise in the general educational and cultural level of our servicemen. "Party political work with personnel, ideological conditioning," L. I. Brezhnev has pointed out, "has always been and remains a mighty weapon of our army. The strength of this weapon has been tested in the fire of battle and even today it strikes fear into our enemies."¹

The historic victory in the Great Patriotic War allowed the Soviet people led by the CPSU to renew the peaceful socialist building which had been interrupted by the attack of the striking forces of international imperialism. Enormous challenges had to be met in restoring the war-devastated national economy and insuring completion of the building of socialism. The party concentrated its attention on activating all the creative energies of communists and the working masses, mobilizing them for inspired, creative labor.

This work had to be done in a situation where the most aggressive imperialist circles, unwilling to accept the enormous losses suffered by the capitalist system in World War II, were trying to shore up their shaky positions and stop revolutionary changes in the world. Immediately after the end of the war these forces adopted a policy of subverting world socialism and its bulwark, the USSR. Under the deceptive slogan of defending the "free world" against the "communist threat," the reactionaries unleashed the "cold war" and began atomic blackmail against the Soviet Union and the other socialist states. The piecing together of aggressive blocs, the malicious anti-Soviet spirit of imperialist policy and propaganda, and the revitalization of the advocates of militarism and revanche all confirmed the real threat of another armed attack on our country. The United States of America stood at the head of the international reactionaries.

This situation forced the Communist Party and Soviet Government to give constant attention to questions of the country's defensive capability, maintaining constant combat readiness in the Soviet Armed Forces, and

¹ "KPSS o Vooruzhennykh Silakh Sovetskogo Soyuzha" [The CPSU on the Armed Forces of the Soviet Union], Voenizdat, 1969, p 439.

building them up in every possible manner. During this difficult period the CPSU was guided by V. I. Lenin's teaching: "We must maintain our full military preparedness as we take steps toward peace."²

At the same time as the significant postwar reduction in number of army and navy personnel the party took vigorous steps to equip the Armed Forces with the latest equipment and weapons, reorganize combat training, improve the organizational structure of units, reorganize the cadre training system, and develop Soviet military science.

In conformity with new historical conditions party political work in the army and navy, a key means of raising the combat readiness and fighting effectiveness of the Soviet Armed Forces, was also reorganized. Measures which promoted attainment of a qualitatively new stage in the ideological-political indoctrination of personnel occupied one of the central places in this reorganization. This was entirely in keeping with the party policy of intensifying ideological work among the masses. The need to activate party ideological indoctrination resulted, for one, from the scope and complexity of the challenges of restoring the national economy and completing the building of socialism, for two, from the need to overcome the consequences of the effects of false fascist propaganda on the consciousness of people who lived in territories temporarily occupied by the enemy, and for three, the increased danger of war from the imperialist side and the intensification of bourgeois propaganda which attempted to disarm the Soviet people ideologically.

In addition to these factors, in the Armed Forces themselves the need to improve ideological work was also based on a number of specific factors. Paramount among them was the fact that the swiftly developing revolution in military affairs and change in the nature of armed combat made ever-higher demands on the moral-fighting and political qualities of personnel. It was also important to consider that virtually all military cadres, who had grown significantly younger during the war years and frequently had not had systematic and consistent ideological-theoretical training, needed a higher ideological-political level. For this reason greater attention also had to be given to the party education of army and navy communists, for after the end of the war 85 percent of the party organizations in units and ships were filled by young communists who had entered the party in a combat situation.

The decrees of the Central Committee of the All-Union Communist Party (Bolshevik) on ideological issues adopted during this period were fundamentally important for ideological indoctrination. They concentrated the attention of party organizations on intensifying worker indoctrination with the ideas of Marxism-Leninism and an understanding of Communist Party policies and teaching them in a spirit of

² Lenin, V. I. "Polnoye Sobraniye Sochineniy" [Complete Works], Vol 40, p 248.

ardent Soviet patriotism and implacable hostility to manifestations of groveling before the reactionary bourgeois culture of the West.

Ideological-political indoctrination in the army and navy was carried on in complete conformity with this line. Improving the basic forms of political education for different categories of servicemen and for army and navy communists was assigned paramount importance.

The Main Political Directorate took steps to establish a broad network of party education which included political schools for new communists (at the primary party organizations), circles for study of the biography of V. I. Lenin and party history (at party bureaus of regiments), and division party aktiv schools (evening party schools after 1951). A significant number of evening universities of Marxism-Leninism were set up to strengthen the highest level of party education.³

As of June 1947 Marxist-Leninist training for officers based on the study of party history and theory and the works of the classical writers of Marxism-Leninism was restored everywhere. Marxist-Leninist training groups were formed by categories of officers considering their service positions, which made it possible to differentiate more completely when organizing training and to increase its effectiveness.

At the same time, the military councils, commanders, and political agencies among the troops gave greater attention to the political training of soldiers, seamen, sergeants, and petty officers.

A uniform system of political training took shape in conformity with the directives of the Main Political Directorate. Syllabi of political training periods were worked out, a standard form of training for group leaders was established (the seminar), and the position of assistant political training group leader was instituted. Political indoctrination provided for compulsory political information sessions in general assemblies of personnel while discussions, lectures, and reports became increasingly widespread.

The work of the army and navy press was reorganized. The formats and circulations of newspapers increased and editorial staffs were expanded. There were qualitative improvements in the activity of cultural and educational institutions.

The steps taken to raise the level of ideological-political indoctrination were favorably reflected in a continued improvement in the military skills of personnel and higher combat readiness in the Soviet Armed Forces.

³ In 1947 there were 135 evening universities in the army. Between 1947 and 1949 the number of students in them increased 2.3 times in the Ground Forces alone (see "KPSS i Stroitel'stvo Sovetskiky Vooruzhennykh Sil" [The CPSU and Building the Soviet Armed Forces], Voenizdat, 1965, p 349).

Socialist competition which unfolded in the armies and fleets played an important part in mobilizing servicemen for new successes in combat and political training. By order of the Party Central Committee, the first all-Army meeting of outstanding servicemen in combat and political training was held in Moscow in March 1957. The participants appealed to fighting men of the army and navy to expand the scope of socialist competition and involve all military collectives in it.

Based on Leninist principles, socialist competition in the Soviet Armed Forces helps mold the lofty moral-political qualities of servicemen and develop their activism, collectivism, and feeling of personal responsibility for the defense of our country.

In the postwar years the Soviet Army and Navy have honorably continued their unquestioned service to the people who, under party leadership, are accomplishing unprecedented historical tasks.

The 19th, 20th, 21st, 22nd, and 23rd CPSU congresses were important mileposts on the road to building a developed socialist society in the USSR, in our country's advance toward communism, and in the steady build-up of the Soviet State's defensive capability.

The leadership role of the CPSU in the life and activity of the Armed Forces has grown steadily and cooperation with the armies of the fraternal socialist countries in the Warsaw Pact system has been strengthened. The party and government never forgot the continuing threat of war from the side of the leading imperialist states who, during the period of "cold war," developed a system of aggressive military blocs around the countries of the socialist community. The chief bloc is NATO.

In the postwar years the reactionary forces led by the United States of America unleashed wars in Korea and Vietnam, undertook a series of military provocations in the Middle East and Indochina, attempted an armed invasion of Cuba, and created an acute crisis in the Caribbean Sea region.

This tense situation made it necessary to continue augmenting efforts to raise the combat readiness of our Armed Forces and strengthen the ideological-political conditioning of personnel.

The Plenum of the CPSU Central Committee held in October 1957 was fundamentally important for strengthening party political influence on the life and activity of army and navy personnel. This Plenum adopted the decree entitled "Improving Party Political Work in the Soviet Army and Navy." After a profound analysis of this work and identification of weaknesses in its content and organization, the CPSU Central Committee outlined concrete steps which insured a stronger leadership role for the party in the Armed Forces and greater influence by military councils, political agencies, and party organizations on all aspects of unit combat activity.

The Central Committee obligated commanders, political workers, and all army and navy communists to work more energetically to achieve excellent results in combat and political training and bolster military discipline.

As emphasized in the decree of the CPSU Central Committee Plenum, one of the central tasks in building up the military might of the Armed Forces was instilling in personnel boundless devotion to the Communist Party and Soviet land and the feelings of indestructible friendship among the peoples of the USSR and proletarian internationalism. The decree obligated political agencies and political organizations to step up work to improve the political-moral condition of servicemen, reinforce the principle of one-man authority, and refine the entire system of ideological-political indoctrination.

The amendments and supplements made by the Party Central Committee to the Instructions for Party Organizations of the Soviet Army and Navy (April 1957) helped meet these challenges. The demands of the October Plenum of the CPSU Central Committee for a more active influence by political agencies on all aspects of military life and activity were reflected in the Statute on Political Agencies ratified by the Central Committee in October 1958.

To improve the quality of ideological work in the armies and fleets the party took a whole series of steps to bolster the management of ideological-political indoctrination by military councils, political agencies, and party organizations. The principle of compulsory checks on the Marxist-Leninist training of officers and political training periods in the army and navy for regular-term servicemen during inspection periods was restored. The ideological-theoretical and organizational level of all forms of personnel political training was improved. The CPSU Central Committee decree of 9 January 1960 entitled "The Tasks of Party Propaganda Under Current Conditions" played an important part in this. Its primary objectives in application to Armed Forces conditions were formulated in the corresponding orders of the Minister of Defense and chief of the Main Political Directorate of the Soviet Army and Navy. Fifty hours of work time a year were allocated for Marxist-Leninist training of officers. Officer training groups were set up in all units and on all ships and a series of syllabi was developed by central authorities. Thus, fundamental changes took place in the system of Marxist-Leninist officer training which had existed until that time.⁴

Thoroughly sociopolitical subjects began to predominate in the political training of all categories of personnel. In 1959 the study of party history at political training periods was introduced for soldiers and seamen in their final year of service. The ideological-theoretical

⁴ In 1954 study groups were abolished in the Marxist-Leninist training system. Officers studied independently on the basis of individual plans. Lectures were given for them at the rate of 24 hours a year.

level of party education rose. Many evening universities of Marxism-Leninism set up faculties in which the social sciences were studied: CPSU history, philosophy, and political economy. The courses were developed mainly on the basis of the curricula of the extension Higher Party School of the CPSU Central Committee. This made the grasp of Marxist-Leninist theory deeper and more consistent.

At the same time steps were taken to bolster political indoctrination in the company, battery, and crew. The Lenin rooms (compartments), the main center of political work in the subunit, began to work more actively.

The policy of steadily increasing the ideological-political indoctrination of all Soviet people and servicemen in the army and navy was officially recorded in a key party document, the party Program adopted in October 1961 at the 22nd CPSU Congress. The CPSU Program pointed out that in the area of ideological-military training for personnel of the Soviet Armed Forces efforts should be concentrated on teaching them in a spirit of absolute loyalty to their people and the communist cause, to be ready to give every effort and, if necessary, life itself to defend the socialist homeland.⁵ To carry out the demands of the Party Program with respect to improving the quality of the political indoctrination of servicemen as applicable to officers, in October 1963 the CPSU Central Committee adopted a decision to improve work with military cadres.

The decisions of the October 1964 and later Plenums of the CPSU Central Committee were exceptionally important in the development of our state and bolstering the military might of the Armed Forces. These decisions fixed the party line on strict implementation of the Leninist work style and promoted the adoption of a truly scientific approach to resolving all problems of economic and social life in the country, including issues of military building and ideological indoctrination of servicemen. As a result of carrying out party aims the political training of all categories of servicemen rose to a new, higher stage.

In the system of Marxist-Leninist officer training much more attention began to be devoted to studying Lenin's military-theoretical heritage and timely problems of the theory and practice of communist building. To improve the ideological-theoretical level of officers such forms of officer training as conducting theoretical conferences and discussions on various issues of military theory and the content and methodology of personnel political and military training began to be used more actively. The quality of party education improved. In this period three clearly

⁵ See "XXII S'yezd Kommunisticheskoy Partii Sovetskogo Soyuza. Stenograficheskiy Otchet" [The 22nd Congress of the Communist Party of the Soviet Union. Stenographic Report], Vol 3, Moscow, Politizdat, 1962, p 312.

distinct elements emerged offering elementary, secondary, and higher political education in the party educational system.

The lecture-seminar method was increasingly introduced in personnel political training and the best-prepared commanders and political workers were enlisted to give lectures at political training periods.

The spread of public volunteer principles in ideological-political indoctrination of servicemen helped raise the level and effectiveness of all ideological work in the armies and fleets. This found expression in the establishment and active work of volunteer lecture groups attached to the political directorates of districts and fleets, agitprop collectives in the political branches of large units, and report groups in the party committees and bureaus of units and ships. Universities of culture and military-technical knowledge, various special-subject lecture bureaus, creative studios, and the like were established on voluntary principles.

The increase in the ideological level of indoctrination work promoted a rise in the political and work activism of servicemen and inspired them to daily struggle for high-quality combat and political training and constant vigilance and combat readiness. Personnel successfully mastered new types of complex combat equipment and weapons, the times required to bring troops and equipment to combat readiness were reduced, and troop maneuvers and exercises were conducted on a high level. The exemplary conduct of the largest combined arms exercise during these years, the Dnepr exercises, was an anniversary statement by the army and navy to the party and people on the occasion of the 50th anniversary of Great October. It demonstrated the ability of the Soviet Armed Forces to accomplish the most difficult and important missions.

Preparation for and celebration of the 50th anniversary of the Great October Socialist Revolution and the documents of the Communist Party dedicated to the 50th anniversary of Great October, the 100th anniversary of the birth of V. I. Lenin, and the 50th anniversary of the formation of the USSR immeasurably enriched the ideological life of the party, people, and Soviet fighting men and fostered a new surge of ideological indoctrination among servicemen.

The CPSU Central Committee decree of 21 January 1967 entitled "Measures to Improve Party Political Work in the Soviet Army and Navy" was very important for further improving party political work. In this document the CPSU Central Committee posed the task of raising party political work in the Armed Forces to the level of the requirements of the 23rd party congress with due regard for the complex international situation and radical changes in the organization of army and navy forces and the nature of modern warfare. The Central Committee demanded an improvement of political and organizational work among the masses of servicemen, especially stressing the need to raise the level and effectiveness of ideological work. "Not a single

serviceman," the CPSU Central Committee stressed, "should be left without constant political influences. The indoctrination of personnel should become a daily concern of every officer, general, admiral, and all army and navy communists."⁶

In carrying out the orders of the CPSU Central Committee commanders, political agencies, and party organizations concentrated attention on raising ideological work to the level of party demands. More active work was done among personnel to instill a spirit of ardent Soviet patriotism, proletarian internationalism, and combat cooperation with the armies of the fraternal countries. Greater attention was given to exposing bourgeois ideology and molding class hatred of the imperialists.

Steps were taken to eliminate the weaknesses in ideological indoctrination pointed out in the decree, cases where political education had become divorced from life and military experience were corrected, and the ideological-theoretical level of training periods and all forms of mass political work was raised.

Qualitative changes in the general educational and cultural level of personnel are increasingly taken into account in the organization and conduct of propaganda and agitation activities. Suffice it to say that whereas in 1939 more than 60 percent of the personnel in the army and navy had only elementary education, today virtually 100 percent of the servicemen have received higher, secondary, or incomplete secondary education. Understandably, the high general educational and cultural level of personnel creates excellent opportunities for more successful ideological work. At the same time, it imposes higher demands for the organization and content of ideological indoctrination activities and makes it absolutely necessary to be constantly concerned for the quality of ideological work and raising its effectiveness.

The purposeful work of commanders, political workers, and party and Komsomol activists to carry out the demands of the CPSU Central Committee decree of 21 January 1967 promoted and still today promotes further growth in the might of the Soviet Armed Forces and a rise in their morale. In the Greeting of the CPSU Central Committee, the Presidium of the USSR Supreme Soviet, and the USSR Council of Ministers to the Armed Forces on the occasion of their 50th anniversary it was noted: "The might and power of the Soviet Army and Navy lie in their undivided loyalty to Marxism-Leninism, the most progressive ideology. Soviet fighting men are filled with great consciousness of their class duty, the nobility of their goals, and the ideas of struggling for the interests of the people."⁷

⁶ "KPSS o Vooruzhennykh Silakh Sovetskogo Soyuza," p 416.

⁷ Ibid., p 454.

The experience gained in the army and navy in political conditioning of personnel on the basis of propaganda for the CPSU Program and later documents and decisions of the CPSU Central Committee was developed further during work to explain the materials of the 24th party congress, which advanced a number of major, fundamentally important challenges related to the development of Soviet society under conditions of mature socialism and the reorganization of international relations. In keeping with the decisions of the 24th CPSU Congress and the demands of the Minister of Defense and Chief of the Main Political Directorate of the Soviet Army and Navy the military councils, commanders, political agencies, and party organizations concentrated primary attention in propagandizing the decisions of the congress on a thorough revelation of the leadership role of the Communist Party, the achievements of the Soviet people, future prospects and forthcoming tasks of communist building, and party concern for continuing to improve the material well-being of the working people, raising the new, Soviet type of human being, and bolstering the country's defensive capability.

In the course of this work servicemen were familiarized with the full complexity of the international situation and the conclusions of the congress concerning the unchanging aggressive nature of imperialism and its aggressive adventures in various regions of the world. All this helped mobilize personnel to increase vigilance and was beneficial for raising combat readiness.

The instructions of the 24th party congress concerning raising ideological work by every means and improving its forms and methods received further substantiation and detailization in a series of later decisions of the CPSU Central Committee. Among them were the decrees entitled "Improving the Economic Education of the Working People," "Participation by Executive and Engineering-Technical Personnel of the Cherepovets Metallurgical Plant in the Ideological-Political Indoctrination of Members of the Collective," "Marxist-Leninist Education and Economic Education of Executive Cadres in the Tashkent City Party Organization," "Work on the Selection and Indoctrination of Ideological Cadres in the Belorussian Party Organization," and others.

The new party demands with respect to the level and quality of ideological-political indoctrination of servicemen formed the basis for the organization and conduct of ideological work in the fleets and armies and found reflection in the new Statute on Political Agencies of the Soviet Army and Navy and the new Instructions for CPSU Organizations in the Soviet Army and Navy, which were ratified by the party Central Committee in February 1973, as well as in the materials of the series of all-Army meetings held in the period between the 24th and 25th CPSU congresses.

The first all-Army meeting of ideological workers held in the post-war period was an important one in this series. A broad range of

questions of political and military indoctrination of personnel was thoroughly covered during this meeting. Weaknesses in indoctrination work in units and subunits were revealed, ways to strengthen ideological influence on servicemen during combat and political training were outlined, and the latest developments and useful know-how in the theory and practice of ideological work were discussed in application to the life and activity of the Armed Forces. The recommendations of this meeting were widely applied in the practical work of commanders, political agencies, and party organizations.

The materials of the 25th CPSU Congress, especially the Accountability Report of the CPSU Central Committee which was presented at the party congress by Comrade L. I. Brezhnev, General Secretary of the CPSU Central Committee, are an outstanding contribution to the theory and practice of Marxism-Leninism and a model of creative elaboration of it. The theoretical conclusions and practical recommendations contained in the materials of the 25th party congress are the basis of the activity of army and navy ideological cadres, the foundation on which all ideological indoctrination in units and ships is organized under current conditions. The Accountability Report of the CPSU Central Committee had high praise for this work in the Armed Forces. "Speaking of indoctrination work, comrades," L. I. Brezhnev said, "one cannot help mentioning the enormous role played in this by the Soviet Army. Young men come to the military family without experience of life. But when they return from the army they have already gone through a school of endurance and discipline, received technical and professional knowledge and political training.

"Our army is indoctrinated in a spirit of profound dedication to our socialist homeland, the ideas of peace and internationalism, and the ideas of friendship among peoples. This is precisely how the Soviet Army differs from the bourgeois armies. This is precisely why Soviet people love their army and take pride in it."⁸

This lofty evaluation obligates commanders, political workers, and party organizations of the Armed Forces to concentrate even greater efforts on solving such pressing problems of ideological work as further strengthening its party loyalty, scientific level and militance, the effectiveness of its influence in molding the communist worldview of servicemen, and activism and enterprise in the struggle against bourgeois and revisionist ideology and the anti-Soviet policy of the current Peking leadership.

The 25th CPSU Congress also pointed out ways to raise the effectiveness of ideological work, taking a comprehensive approach in its organization. Under Armed Forces conditions this means above all merging the political,

⁸ "Materialy XXV S'yezda KPSS" [Materials of the 25th CPSU Congress], Moscow, Politizdat, 1976, pp 75-76.

military, and moral indoctrination of different categories of servicemen into a single process with due regard for their professional, age, educational, and other characteristics.

The 25th party congress emphasized with new force that molding a high level of ideological conviction is the determining factor in communist indoctrination of Soviet people. It posed the task of continuing to improve all forms of political education based on thorough study of the materials of the congress.

The CPSU Central Committee decree adopted in June 1976 and entitled "Tasks of Party Education in Light of the Decisions of the 25th CPSU Congress" directed all ideological workers, army and navy workers included, to more purposeful work to resolve the central problem of all ideological indoctrination: achieving a situation where the knowledge obtained during political education helps every Soviet person, including army and navy servicemen, develop an activist posture in life and serves as a guide to practical activities and a source of highly moral behavior. This is precisely the standpoint from which all political education in the Armed Forces is organized. The specific challenges for improvement of ideological work set forth at the 25th party congress received further substantiation and elaboration in the documents of the October 1976 Plenum of the CPSU Central Committee. In his talk at the Plenum Comrade L. I. Brezhnev, General Secretary of the Central Committee, emphasized: "The Central Committee will continue in the future to keep questions of ideological work at the center of its attention. We will demand that all party agencies and organizations do the same."⁹

The decisions of the 25th CPSU Congress and the October 1976 Plenum of the CPSU Central Committee, the program statements of L. I. Brezhnev at the October Plenum, in the hero-city of Tula, and at the 16th Congress of Trade Unions, and his report on the draft of the new USSR Constitution at the May Plenum of the CPSU Central Committee have enriched the ideological life of the Armed Forces and made it much fuller and more varied. These historic documents have become the foundation of all ideological indoctrination work in the army and navy. They are being studied in all elements of personnel political education.

All our officers are now developing a profound mastery of the ideological riches of the 25th party congress. This is greatly aided by training periods conducted according to new syllabi which are comprehensive in nature and figured for well into the future. They cover a broad range of theoretical and practical problems of party policy and contemporary issues of Soviet military building and party political and ideological indoctrination work.

The first year of training periods using the new syllabi shows that officers have manifested enormous interest in the materials of the

⁹ PRAVDA 26 October 1976.

Congress, are studying the primary sources of Marxist-Leninist theory more thoughtfully, and are doing more independent work.

Significant adjustments have been made in the syllabi for political education of warrant officers [praporshchiki and michmany]. The course entitled "Foundations of Political and Military Indoctrination" helps instill lofty political, work, and moral qualities in them.

The content of political training periods for soldiers, seamen, sergeants, and petty officers has also changed significantly. Primary attention here is concentrated on timely issues arising from the decisions of the 25th congress and on tying them closely to the practical missions being accomplished by the units and ships. The Lenin quiz entitled "Decisions of the 25th CPSU Congress — into Practice" was important in increasing political knowledge. During it the level of political self-education among young servicemen was raised and study of the Leninist ideological-theoretical heritage and controlling party documents became even more active.

There has been a major change in the content of education in all elements of the system of party education. New subjects arising from the materials of the 25th CPSU Congress and many timely issues of party activity have enriched it. For example, all the faculties at evening universities of Marxism-Leninism have introduced a special two-year course entitled "Timely Problems of Party Theory and Policy in Light of the Decisions of the 25th CPSU Congress." In many places new faculties have been set up to study the problems of international relations and the foreign policy activities of the CPSU. Vocational guidance for trainees and their participation in public and propaganda work have begun to receive more consideration in the system of party education.

The qualifications of leaders of political training groups for different categories of servicemen are steadily rising thanks to the efforts of commanders, political agencies, and party organizations.¹⁰ More attention is being given to their ideological-theoretical and methodological training everywhere. Assemblies of training leaders, theoretical seminars, science-practice and methods conferences are held on a higher ideological and organizational level. Such forms of work as political training leader days, propagandist information days, and so on have become widespread. All these activities make it possible to significantly strengthen the ideological effect of political education and make it more effective.

¹⁰ For example, in the current training year the number of communists among group leaders has risen to 69.5 percent, compared to 67 percent in 1976. More than 50 percent of them have higher education and 53 percent have been group leaders for more than three years.

With the expanded scale and improved quality of ideological work the demands on mass cultural education also increase greatly. It is difficult to overestimate the role of army and navy cultural educational institutions in raising active, thoroughly developed defenders of our socialist land and satisfying the nonmaterial wants of our servicemen. Following the decisions of the 25th party congress these institutions are significantly activating their work on ideological, moral, and esthetic indoctrination of personnel and are taking a creative approach to the search for new, more striking and effective forms of work. For example, a noteworthy practice is for cultural institutions to conduct Lenin and sociopolitical readings on topics such as "The Party Is the Mind, Honor, and Conscience of Our Age," "The Mighty Step of the Land of Soviets," and the like. It is instructive that the readings are usually accompanied by a showing of film strips and photographs and the organization of various kinds of exhibits.

All cultural-educational activities have been much more closely tied to the units of various sizes. To step up military-technical propaganda the houses of officers of the Far Eastern and Kiev military districts, the Northern Fleet, and various other formations have established a broad network of universities of military-technical knowledge with faculties for the subjects required for the military specializations of officers and warrant officers. In the Leningrad District House of Officers imeni S. M. Kirov, for example, roughly 300 officers are studying in the faculty of military-technical knowledge at the university of culture. The number of meetings between servicemen and figures in science and technology, visits to enterprises and scientific research institutes, and reviews of the news from military-technical literature has increased significantly. All this helps servicemen master modern combat equipment more thoroughly and accomplish their combat training missions.

To a large degree improving the work of these institutions involves raising the level of management of them by military councils, political agencies, and party organizations, having a thought-out system of methodological training for the needed cultural workers, and generalizing the progressive know-how of the best houses of officers, clubs, and libraries.

The recently adopted CPSU Central Committee decree entitled "Increasing the Role of Oral Political Agitation in Carrying Out the Decisions of the 25th CPSU Congress" is new evidence of party attention to communist indoctrination of the masses and continued improvement of mass agitation work. In furtherance of the demands of the 25th party congress and the above-mentioned decree the USSR Minister of Defense and the chief of the Main Political Directorate of the Soviet Army and Navy have clearly defined the objectives of mass agitation work under current conditions and ways to improve it and pointed to the need to bolster its role and effectiveness in the ideological-political, labor, moral, military, and legal indoctrination of personnel and in mobilizing army and navy men to raise combat readiness even further in light of the 25th CPSU Congress.

In carrying out the demands of the CPSU Central Committee decree and the USSR Minister of Defense and the Chief of the Main Political Directorate, the military councils, commanders, and political agencies are taking every possible step to develop mass agitation work.

We have thousands of agitators, political commentators, members of agitprop collectives and agitation-propaganda groups, and regular staff lecturers from political agencies who use the passionate party word to indoctrinate servicemen in the ideas of Marxism-Leninism, the spirit of socialist patriotism and proletarian internationalism, and undivided devotion to our country and the Communist Party and to mold in them a constant readiness to defend our socialist fatherland.

The army and navy press make a significant contribution to the ideological-political indoctrination of servicemen and mobilizing them for exemplary performance of military duty. Timely issues of mass agitation work have begun to be treated more fully in military newspapers and journals and they publish more material to assist the propaganda aktiv with the most complex and important problems of party domestic and foreign policy and the political and military indoctrination of personnel. The press is devoting more attention to methodological recommendations concerning oral political agitation; material which analyzes shortcomings in this work and disseminates progressive know-how is becoming more common.

The army and navy press, like all ideological institutions of the army and navy, are progressing honorably in seeing that the decisions of the 25th party congress and subsequent Plenums of the CPSU Central Committee are thoroughly and thoughtfully studied and put into practice by all servicemen.

There has been a new surge of ideological work in connection with preparations for the national holiday of the 60th anniversary of Great October. The CPSU Central Committee decree entitled "The 60th Anniversary of the Great October Socialist Revolution," which was adopted in January 1977, gave a profound summary of the basic results of the development of our country in the last six decades and showed the grandiose prospects for building communism.

Military councils, commanders, political agencies, and all army and navy ideological activists, using all forms of propaganda and agitation, have undertaken extensive work to explain to servicemen the world historic importance of Great October and the outstanding role of V. I. Lenin and the Communist Party he founded in preparations for and the victory of the revolution as well as in the later historical achievements of our people. This multifaceted ideological indoctrination work is having a beneficial effect which can be seen in the growth of the political awareness and activism of servicemen and their desire to perform their military duty in an exemplary manner.

Like all Soviet people, army and navy men, striving to greet the glorious anniversary of Great October in a worthy manner, have undertaken socialist competition to perform all missions of combat and political training well and further bolster military discipline.

Thanks to the high political activism and consciousness of all categories of servicemen lasting results have been achieved in raising combat readiness, in the field, sea, and air training of our personnel, and in strengthening military discipline. The programs of the summer training period are being successfully carried out.

Soviet servicemen express their boundless love and devotion for the Communist Party, the inspirer and organizer of all our victories, by selflessly performing the tasks laid down by the 25th party congress for the Armed Forces.

A brilliant new sign of the monolithic solidarity of Soviet fighting men around the party and of their ardent support for its domestic and foreign policy is the unanimous approval by all servicemen of the decisions of the May Plenum of the CPSU Central Committee and Comrade L. I. Brezhnev's report at it, the draft of a new USSR Constitution, and the materials of the 6th session of the USSR Supreme Soviets.

The draft of the Constitution which is now being discussed universally reflects the historic gains of the Soviet people who have built a society of developed socialism and lays out precisely the tasks and functions of our all-people's state in building communism and strengthening the defensive capability of the Soviet Union. The statements in the USSR Constitution on defense of the socialist fatherland are evidence of the indivisible unity of the creative and defensive functions of our state. The new USSR Constitution will give the Soviet Armed Forces even greater importance as the reliable guard over the peaceful labor of the Soviet people and the bulwark of world peace.

Closely associated with the materials of the 25th congress, the decisions of the May Plenum of the CPSU Central Committee, Comrade L. I. Brezhnev's report at this Plenum, and the draft of the new Constitution have become the subject of active discussion and study at meetings of party aktivs, open party meetings, scientific-theoretical conferences and seminars, discussion meetings, and general meetings and political demonstrations of personnel. All forms of political education and all mass agitation and propaganda work today is permeated with the propositions and ideas of these documents.

Together with all Soviet people the fighting men of the army and navy warmly approve of the Basic Law of the country and the statements of the Constitution on defense of the socialist fatherland. They are greeting the 60th anniversary of Great October with further improvements

in their combat skills and an increase in the level of combat readiness in the armed forces.

Personnel of the army and navy received the 16 June 1977 decree of the USSR Supreme Soviet concerning the selection of Comrade L. I. Brezhnev, General Secretary of the CPSU Central Committee and Marshall of the Soviet Union, to be chairman of the Presidium of the USSR Supreme Soviet with great enthusiasm.

Soviet fighting men, in close solidarity around the Communist Party, its Leninist Central Committee, and the Politburo headed by Comrade L. I. Brezhnev, unanimously support the domestic and foreign policy of the CPSU and Soviet Government and vigilantly guard peace and socialism. The wise leadership of the party is the inexhaustible source of the strength and invincibility of the Soviet army and navy.

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TANK ARMY ENCOUNTER BATTLES IN OFFENSIVE OPERATIONS

Moscow VOYENNO-ISTORICHESKIY ZHURNAL in Russian No 9, Sep 77
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[Article by Col B. Frolov, docent, candidate of historical sciences:
"Encounter Battles of Tank Armies in Offensive Operations"]

[Excerpts] During the Great Patriotic War the Soviet Army waged a large number of encounter (meeting) battles. The encounter battles of tank armies were particularly important.

Operating in the axes of the main strikes of the fronts, tank armies were the primary means used to develop success in front offensive operations. This operational assignment often led them to wage encounter battles because the enemy would ordinarily direct his reserves, which were based on tank units, primarily against the assault groups of the fronts.

During the last war the art of organizing and waging encounter battles by tank armies was significantly developed. The study of these battles has engaged the attention of many Soviet military theoreticians and historians. Numerous works which illuminate and generalize experience in waging such actions have been published in the postwar period.¹ Moreover, this issue has been treated in major works on the history of the Great Patriotic War.²

Despite its timeliness, however, this problem still has not been worked out with adequate depth.

This article attempts to show the conditions of occurrence and review certain questions of the organization and waging of encounter battles by tank armies during the last war.

The conditions of occurrence of encounter battles. During the Great Patriotic War encounter battles by tank armies occurred: at the beginning of offensive operations in the concluding phase of the break

through the tactical zone of enemy defense, when the enemy tried to restore his position with counterstrikes by the nearest operational reserves; during offensive operations when tank armies, developing a success, encountered enemy operational reserves (primarily tanks) which had moved up to deliver counterstrikes or take an advantageous defensive line or reserves which had delivered counterstrikes for the purpose of stopping the advance of our forces; in the concluding stage of offensive operations when the enemy would introduce deep operational or strategic reserves in an attempt to stop the advance of tank armies which had already largely exhausted their offensive capabilities but were attempting to take an advantageous region (line) with the purpose of creating favorable conditions for subsequent operations. Encounter battles also occurred during offensive operations when repulsing enemy attempts to break out of encirclement or break through to an encircled grouping.

Thus, the war experience shows that encounter battles of tank armies usually occurred in conditions of mobile combat actions with the most diverse situations, and in different stages of offensive operations.

The nature of encounter battles. The encounter battles of tank armies were characterized by great dynamism, mobility and decisiveness of combat actions, the existence of open flanks and significant intervals between units, and frequent mutual penetration by the assault groupings of the two sides. Maneuvering with forces and means during encounter battles became crucial. Combat actions showed very great diversity. While the main forces of a tank army waged offensive operations, certain of the large and smaller units would be defending and others would be regrouping or just reaching the field of battle. Thus, the encounter battle of tank armies sometimes included different types of combat actions taking place in an exceptionally complex, fast-changing situation over a significant area. As can be seen from the table [not translated] tank armies waged encounter battles on fronts ranging from 16 to 58 kilometers. Combat actions developed concurrently to depths of 10-60 kilometers. The battles lasted 1.5-4.5 days. The rate of advance during the encounter battles reviewed in the article was not more than 2-9 kilometers, only in certain battles reaching 13-15 kilometers a day (the 3rd Guards Tank Army at Fastov and the 4th Tank Army at Kielce).

Experience shows that the encounter battles of tank armies occurred at different depths: at the beginning of the operation at a depth of 15-25 kilometers, during development of the success in the operational depths of the enemy at a distance of 40-120 kilometers, and in the concluding stage of the operation at depths of 130-350 kilometers. The depth at which the encounter battles occurred depended on the direction in which the front operation was developing and the missions being accomplished by the front. At the beginning of an operation encounter battles usually occurred on the second or third day, while in developing success in the operational depth they would be between the third and sixth days, and in the concluding stage of an operation would occur between the ninth and 18th days.

A characteristic feature of encounter battles in the last war was that they were waged in any season, at any time of the day, and on any terrain. For example, the encounter battle of the 3rd Guards Tank Army near Proskurov occurred in the evening twilight, whereas the 5th Guards Tank Army waged a battle in the Wormditt during a heavy winter snow storm, and the 3rd Guards Tank Army at Fastov and the 4th Tank Army at Kielce waged combat actions under nighttime conditions during encounter fighting.

In most encounter battles the two sides had 200-1,100 tanks and self-propelled guns and 600-1,000 field guns and mortars of 76 mm caliber and higher.⁹ In addition, aviation took an active part, performing 600-2,000 missions in the course of an encounter battle.¹⁰ The considerable area of the battle and participation by large numbers of troops and military equipment in them made them exceptionally decisive, hard-fought, and intense.

Therefore, the most characteristic features of encounter battles of tank armies during the last war were: participation by a large number of troops and combat equipment, extremely limited time available to organize combat actions, entry of tank armies into battle on the run, unclear and rapidly changing situations, intense struggle throughout the battle to capture and hold the initiative, and relative swiftness and dynamism in combat actions.

Encounter battles were usually organized during the initial phases of the fighting. It was necessary to perform the following tasks quickly: adopt a new plan or modify the previous one, give missions to the troops, organize cooperation in view of the new missions, create the necessary grouping of forces and means, and resolve the problems of supporting combat actions. All of this work was done in a very complex and tense situation, in an extremely short period of time (3-5 hours). In certain cases where encounter battles occurred as the result of counterstrikes by our tank armies against enemy assault groupings that had gone on the offensive (for example the 5th Guards Tank Army in the Wormditt region), the time available to organize encounter battles increased 6-9 hours.¹¹ The reason for this was that in this case the tank army received its mission to counterattack early, and naturally, had more time to organize for a possible encounter battle. But the tank armies which were developing successes in the enemy's operational depth did not have such time. The situation was made more difficult for them by the fact that in the period preceding the encounter battle they were usually performing a mission given earlier with an appropriate grouping of forces and means that was not always right for the situation which developed with the start of the encounter battle. Therefore, they faced the difficult problem of quickly redirecting forces to accomplish new missions and organizing their actions accordingly.

In addition to a high level of practical operating skill among commanders and staff, steps taken ahead of time to organize for encounter battle were important in rapid and successful accomplishment of this mission. The most important preparatory steps were: determining the probable region of the battle; organizing and carrying on deep and continuous reconnaissance; creating the necessary grouping of forces and means; timely notification of subordinates concerning the likelihood of an encounter engagement with the enemy; reliable protection of friendly troops against enemy air strikes; taking the most important steps toward rear support; carrying on purposeful party political work. Doing all these things significantly reduced the time needed to organize encounter battle and created conditions in which our forces prevented the enemy from delivering the first attack and rapidly captured the initiative.

Battle missions were usually delivered to large and small units in separate, concise battle instructions given by the commander personally or through his staff. Cooperation was usually organized at the same time as combat missions were delivered (modified) and was aimed primarily in the interests of performing the main missions.

During encounter battle the army commander would control his forces from a command post located 15-20 kilometers from the corps. However, as experience shows, in the course of the battle the army commander and operations group often moved closer to the forces operating in the axis of the main strike in order to improve the reliability and operational quality of control. The distance between the operational group and the battle formations would be 4-8 kilometers.

Waging encounter battles. Encounter battles usually began with the combat actions of forward detachments, supported by the fire of attached artillery and, in some cases, aviation.

The experience of the Great Patriotic War shows that the encounter battle of the tank army during a front offensive operation had a significant effect on the course and outcome of the operation. The following aspects of encounter battle were important: the ability of the tank army commander to foresee the possible development of the operation and (if necessary) carry out advance preparations for the battle; precise organization of the battle; preventing the enemy from delivering a strong first strike; rapidly achieving fire superiority over the enemy and solidly capturing the initiative; carrying out decisive maneuvers with forces and means in the course of the battle; operational [quick, resourceful] troop control; maintaining continuous cooperation among army units and with attached and supporting forces and means; correct choice of the method of crushing the enemy, and others.

FOOTNOTES

1. Smirnov, V., "Encounter Battles," VOYENNO-ISTORICHESKIY ZHURNAL 1973, No 4; Radziyevskiy, A., "Tankovyy Udar" [Tank Strike], Voenizdat, 1977, pp 136-145.

2. "Istoriya Velikoy Otechestvennoy Voyny Sovetskogo Soyuz 1941-1945" [History of the Great Patriotic War of the Soviet Union of 1941-1945], Vol 3-5, Voenizdat, 1960-1965; "Velikaya Otechestvennaya Voyna Sovetskogo Soyuz. Kratkaya Istoriya" [The Great Patriotic War of the Soviet Union. Short History], Voenizdat, 1970; "Sovetskiye Tankovyye Voyska 1941-1945" [Soviet Tank Troops, 1941-1945], Voenizdat, 1973; "Istoriya Vtoroy Mirovoy Voyny 1939-1945" [History of World War II of 1939-1945], Vol 7, Voenizdat, 1977.
9. In the Wormditt region the 5th Guards Tank Army had 200 tanks and self-propelled guns and 324 field guns and mortars whereas the enemy had 100 tanks and assault guns and up to 300 field guns and mortars; at Fastov the 3rd Guards Tank Army had 373 tanks and self-propelled guns and 488 field guns and mortars whereas the enemy had up to 400 tanks and assault guns and up to 300 field guns and mortars; at Kielce the 4th Tank Army had 750 tanks and self-propelled guns and 489 field guns and mortars whereas the enemy had 360 tanks and assault guns. Corresponding figures for other encounter battles (totals for both sides) were as follows: at Bogodukhov -- more than 650 tanks and self-propelled guns and more than 800 field guns and mortars; at Proskurov 700 and more than 900; at Lake Balaton 900 and more than 700.
10. VOYENNO-ISTORICHESKIY ZHURNAL 1973 No 4, p 27.
11. The 5th Guards Tank Army had nine hours to organize its encounter battle in the Wormditt region (TsAMO [Central Archive of the USSR Ministry of Defense], Fund 332, Inventory 4948, File 387, Sheet 56).
15. TsAMO, Fund 324, Inventory 4756, File 137, Sheets 193-261.

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POSTWAR DEVELOPMENT OF CONTROLLING FIGHTER AIRCRAFT

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[Article by Maj Gen Avn L. Mikryukov: "Controlling Fighter Planes in Aerial Combat"]

[Text] Successful control of aerial combat requires 1) timely detection of the enemy and 2) continuous management of the battle from the ground and in the air. In the postwar period there have been several successive generations of jet fighter planes, but these two requirements continue in force today.

During the Great Patriotic War timely detection of the air enemy was achieved by organizing a far-flung warning and guidance network based on visual posts of the VNOS [aircraft warning service] and radar. Information on the air situation was also provided by the crews of reconnaissance aircraft which were constantly flying over the front line and the crews of combat aircraft performing other missions. The VNOS posts sent the fighter aviation command post the following information: the place and exact time of the appearance of an air enemy, his course, flight altitude, the composition of the group (type and number of aircraft), and the nature of their actions.

The most important sources of information on the situation in the air were the RUS-1 ("Reven'") and later RUS-2 ("Redut" and "Pegmatit") radar sets which could detect aircraft at medium altitudes at distances up to 150 kilometers. The radio warning network worked around the clock using telegraph and microphone on a specially set wave according to a table of radio signals worked out by the headquarters of the air army.

The fighter guidance system included radios located at all airfields, at the air army command post, and in the units covering the primary installations. The radios of ground forces (switched to the guidance wave) were also used when the front chief of staff so instructed. Their job was to inform pilots of the air situation and make it easier for them to find the targets.¹

The number of guidance radios in an operation was not constant. During periods of vigorous air action they were arranged near the front line 10-15 kilometers from one another. They were used in mobile groups of forces and the units of combined arms armies operating in the main axis. There was an air controller-officer at each radio (with the right to information on the situation, but not authorized to give commands).

The warning and guidance posts were included in the overall system for fighter control at the forward edge. Thanks to the organization of such a system the fighters had a number of advantages: they had timely information on the enemy, they got an early start on intercept missions, and they received support when their forces ran out.

Early warning of the appearance of the enemy allowed group commanders to use the most advantageous battle tactics. "To defeat the enemy, he must be detected in time," the famous Soviet ace A. I. Pokryshkin wrote in an article entitled "What Experience Teaches."²

The RUS station usually spotted enemy aircraft and determined the course, velocity, and (roughly) composition of the group when they were 130-150 kilometers away. This made it possible to bring in fighters on duty status at airfields and precluded the necessity of continuous air patrolling, thus creating conditions for economical use of forces. After modification of the control system the effectiveness of aerial actions by fighter aviation rose significantly. In 1945, for example, the number of fighter missions per enemy plane shot down was 53 as compared to 155 in 1943.³

The most important requirement was constant management of the battle. The organization of control over fighters in the air was made difficult by the fact that the space used in battle was constantly expanding. The reasons for this were the increase in the velocities and flying altitudes of the planes, the growth in the number of fighters taking part in battle, and the scope of horizontal and vertical maneuvers. It became increasingly difficult for the group commander in the air to keep track of the actions of each wingman. He needed help from the ground, but the ground control post could only give him effective help if it had radio engineering equipment for communications and detection.

The procedure for controlling fighters was roughly the following. The commander of the aviation unit or his deputy, receiving information on the air situation from forward radio detection posts, would use the commander's radio to do the following: call fighters from the airfield (or duty zone); guide them to the enemy personally, if the enemy was in his field of vision, or through informing (guidance) stations to which aviation commanders had been sent; bring additional forces into the battle region (by transferring them from another zone or calling them from an airfield); make corrections if the group of aircraft made tactical mistakes.⁴

Aerial battle was controlled directly by the group commander in the air. After the fighters had taken off and received guidance to the enemy the ground radio would go silent. It would come back on the air only with the approach of fresh enemy forces or the threat of a surprise attack by the enemy. Thus, until the moment of detection of the enemy commands were given from the ground, but after the battle began only information would be transmitted (with the exception of a possible command to halt the battle).

Fighter squadrons had adequate strength to accomplish complex missions independently. They were the optimal group for successful control of actions by the commander. Owing to abrupt maneuvers it was difficult to hold to a single formation during a battle, and so the squadron would break into flights. Nonetheless, the pilots continued to operate in conformity with the plan of battle developed earlier. It indicated targets for each flight, the distribution of duties in case of a change in the situation, and reorganization of the battle formation by stages of the battle. Advance planning and coordination from the ground made squadron control in the air much easier, but did not constrain the initiative of the flight commanders.

The experience of the Great Patriotic War shows that continuous control of aerial battle is achieved by skillfully combining the procedures of control from the ground and in the air.

Reliable, flexible control from the ground can be achieved through accumulated know-how and comprehensive training of unit commanders, precise organization of the warning system, moving control points toward the region of combat actions, and supplying them with up-to-date detection and guidance equipment.

A plan of battle developed in advance and known to all subordinates helps maintain continuity of control. Intelligent initiative by flight personnel operating in conformity with the overall intention is equally important. "The one who deserves a reproach is not the one who tries to destroy the enemy and fails but rather the one who, fearing responsibility, stays out of action and does not use all available forces and means at the necessary moment to achieve victory."⁵ This is a timely statement today as well.

Below we review questions of controlling fighter planes according to the views of foreign specialists published in the open press during the postwar period. This period can be provisionally subdivided into four stages.

The first stage (1945-53) saw continued refinements in control of fighters in the air but no major changes from procedures used during World War II.

Jet aircraft had VHF receiving and transmitting radios and the air situation was monitored from the ground using radar sets whose tactical-technical characteristics were significantly improved. The detection

range for aerial targets and resolution of these radar sets were improved 2-3 times over the first radars used in World War II. Figuratively speaking, the ground command post began to "see" higher and further and distinguish separate small groups of fighters located short distances from one another.

The practical ceiling for jet aircraft had already reached 15,000 meters, but radars were capable of detecting aerial targets at an altitude of 20,000 meters (the first radars lost targets from their field of vision when the planes flew higher than 5,000 meters). Plan position indicators (PPI's) appeared at fighter aviation command posts, making it easier for control officers to grasp the air situation. The "friend or foe" query system was put into practice and enabled the operator to determine the affiliation of planes.

The war in Korea (1950-1953) confirmed that the principles of fighter control had not changed.

The battle team at the command post received information on the enemy from the warning system posts, analyzed the situation on what was known as a vertical mapboard, tracked detected targets, and sent the necessary number of fighters into the air. Guidance to the enemy was carried out from the ground until the group leader detected the target. During the battle the command post provided information only while the fighting was controlled by the commander in the air.

A typical feature of the control of mobile group battle involving jet aircraft was that the element leader received greater independence. The battle usually began with a composed squadron. The commander would control its approach and engagement. But after maneuvering started (if the surprise attack was thwarted) it was not always possible even to maintain flight composition. But the pair (element) remained indivisible, in other words, the tactical principle of the "sword and shield" used by our pilots in the Great Patriotic War was preserved. The pair of fighters would often receive an independent battle mission and the senior pilot (element leader) was responsible for its fulfillment. An objective law emerged: as flying speed increased the battle formation was broken down and, as a result, a certain decentralization of control during mobile group battle occurred.

Procedures for controlling single fighter planes performing missions of repulsing enemy bombing attacks at night began to be worked out during the war in Korea. But the fact that the planes did not have radar sights on board prevented them from successful guidance by instruments and using weapons when the target was not in the pilot's field of vision.

In 1953, at the end of the war, the Americans began special procedures to complicate the air situation in the region of combat actions, with radar jamming, false information on the radio, simulating false directions of attack, carrying out diversionary maneuvers before the start of

an attack, and so on.⁶ Such activities made it difficult to analyze the air situation at command posts and adopt a plan for the use of fighters. This significantly raised requirements for the training of the commanders controlling aerial battle from the ground. Now the commander's duties included not only determining the make-up of the fighter group to repulse the attack, organizing guidance of the group to the enemy, and building up forces in the air on time, but also making sense of the stream of false and true information, guessing the enemy's intention, and insuring that friendly planes started the battle in advantageous conditions.

The second stage (1954-1959) was characterized by the appearance of a new generation of jet fighters and practical implementation of programming and automating the processes of controlling fighters in the air. During this period the basic mission of supersonic fighter planes equipped with missiles was considered to be destroying attack aircraft carrying nuclear weapons. It was assumed that the carriers would chiefly attempt to break individual planes through to the targets under complex meteorological conditions and at night. The air forces of the militarily most advanced countries adopted improved guidance radars and fighter-interceptors equipped with radar sights.

Fighter control was carried on primarily from the ground. The pilot flying alone strictly followed commands on change of course, velocity, and flight altitude given by radio and took the plane to the point of possible target detection by onboard radar. Practical success in aerial battle, to be more precise approach and detection of the target, began to depend on the ability of the command post to determine the flight parameters of the target and fighter, select the most advantageous intercept procedure in the particular situation, and determine the rendezvous point.⁸

The third stage (1960-1973) was characterized by further development of automation of control on the one hand and, on the other hand, the rehabilitation of close mobile combat. Ground posts received better equipment, as did the aircraft, and command transmission lines from warning posts were laid out. Airplanes were equipped with integrating devices, onboard computers, and radar sets capable of tracking the target after it had been detected and "locked onto." All the same, the basic principles of controlling fighters in the air and trends in the development of means and methods of control which had appeared in World War II remained in force.

In recent years a great deal of attention has been devoted to the development of radio engineering control equipment. This is entirely natural. The widespread use of radio electronics significantly increases the reliability of guidance and intercepts. The combined method of guidance to the enemy by radar from the ground and control of battle by the group commander again became paramount in the period of the war in Vietnam (1964-1973).

The activism of North Vietnamese fighters and the substantial losses of American aircraft in aerial battles forced the U. S. Air Force to give even more serious attention to working out radio countermeasures in order to make it more difficult for the enemy to obtain information on the air situation and control fighters. The American journal *ORDNANCE* wrote: "In contemporary battle the measures of radio electronic warfare demand detailed reconnaissance of ground radar means, procedures to neutralize fighter guidance stations by jamming, and active interference in the work of the units controlling them. In addition, there must be effective technical means for confusing the enemy by issuing false information."¹⁰

To improve flight security in the zone of action of North Vietnamese fighters the American command used airborne command posts. The battle team and equipment were placed in long-range radar detection EC-121D and E-2A planes (which were not specially designed for control missions). The onboard surveillance radar established the three coordinates of the target and could single them out against a land background.

Airborne command posts patrolled along the coast of the Gulf of Tonkin during air attacks on North Vietnamese installations and remained at a distance of 120-150 kilometers from the region of combat actions (flying at altitudes of up to 2,500-3,500 meters). The battle team had the following missions: detection of ground radar stations and actively jamming them; observation of the air situation and timely warning of aircraft crews on the appearance of enemy fighters; guiding friendly fighters to aerial targets.¹¹

Foreign experts believe that the experience of the local wars in Vietnam and the Middle East has demonstrated that the appearance of improved technical equipment, automated systems, and radioelectronic equipment at ground command posts has not simplified the methods of fighter control.

The fourth stage (beginning in 1974) is characterized by the adoption of the third generation of jet fighters and further refinement of the system of controlling them. The tendency to combine the methods of controlling fighters from the ground and in the air is continuing in this period. There has been a noticeable increase in requirements imposed on the pilot when waging mobile battle, as also happened during World II. But the revision of views taking place has a completely different material basis.

After the war in Vietnam the American command came to the conclusion that the ground control post needed to be relieved of part of its work. The new F-15 Eagle fighter plane which was adopted by the U. S. Air Force in 1976 has a search radar, a search and locking radar (automatic target tracking), and an analyzer which helps the pilot choose the important target, procedures for attacking it, and the most effective weapon in the given situation (medium- or short-range missile, cannon).

The subunit commander assumes the functions of searching and analyzing the air situation within 80-100 kilometers and also keeps the right to decide on a method of attack (determining battle procedures). The command post collects and analyzes information coming in from the AWACS (advance warning) system, distribution of fighter forces, and orderly assembly of them at the search line (but not their engagement in mobile battle, as was formerly the case). Thus, there has been a redistribution of efforts while keeping the general principle of controlling fighters from the ground and by the group commander in the air.

The new control scheme has only been outlined at present, but its shape is becoming increasingly clear. The main drawbacks are the high cost of airplanes with complex electronic equipment, the limited number of them, and the necessity of working out procedures for their use which guarantee adequately high security.

The vulnerability of fighter planes which must patrol near the front line is not their only shortcoming. At present they are quite susceptible to jamming. When powerful jamming transmitters acted on the aircraft's surveillance radar the pilot found it difficult to understand the air situation shown on display units.

There is one more equally important problem: singling out aerial targets against the land background. Attack aircraft today are not only able to use extremely low flying altitudes but can also conceal themselves in radio shadow zones. As the French journal STRATEGIE wrote: "Bombers can avoid early detection and meeting enemy fighters by using effective evasion procedures. Under current conditions the possibility of breaking through to the object of the attack through carefully planned tactics can be greatly enhanced."¹²

Considering the difficulty of combating low-altitude targets, modification of the system of fighter control is combined with organizing close cooperation with air defense units. Thus, the battle team of the guidance and warning center of the automated system for control of tactical aviation in the Central European theater of military actions includes an officer who is responsible for selection of anti-aircraft missile complexes (in the segment of the target's flight) and a communications officer to contact anti-aircraft artillery units, which are an effective weapon against low-altitude aircraft.

Foreign experts note that the process of controlling weapons designed to combat aerial targets occurs as follows. After a forward post detects an aircraft its description, flight parameters, and affiliation are established. All information received is transmitted in digital form along communications channels to the control and guidance center where it is automatically fed to a computer. The target parameters are compared with data on the flight plans of friendly aviation which have been put in computer memory.

At the same time the computer determines how much time is needed to intercept the target with the particular type of weapon. On the basis of the operators' analysis of the situation the command chooses anti-aircraft missile complexes, conventional artillery, or fighter planes. Where fighter planes are chosen the target is passed to the fighter aviation command post and its team, using the computer, determines the specific types of aircraft and takeoff fields. Data on the position of the target and the fighter, taken from the radar sets, are again fed into the computer. The course, altitude, and flight velocity are re-computed. Guidance commands are sent to the fighter by automatic communications lines (or by voice over radio). The pilot orients himself according to the position of the command indicators on flight instruments and guides the aircraft to the calculated rendezvous point or search (detection) line ordered from the ground.¹³

After the pilot has detected the target he takes over further decisions by stages of the battle (approach, assuming a favorable position, choosing the weapon, the attack, and escape from the attack) on his own. When a group of planes are entering combat together the group commander (leader) assumes control. This is the current system for control of fighters adopted in the air forces of most Western countries for performing the mission of covering troops (or installations in the tactical zone).

Overall foreign experts believe that, for one, the principles of controlling fighters which guided pilots during World War II have been preserved in full. But only the use of more sophisticated technical equipment and thorough training of control personnel has made it possible to insure continuous, flexible control. For two, the two basic methods of control, from the ground and in the air, have remained in force. During different periods in the development of fighter aviation tactics preference has been given to one or the other, but maximum effectiveness has only been achieved by an optimal combination of the two. For three, the tendency to bring fighter control posts closer to the region of combat actions continues. A graphic reflection of this tendency today is the desire to detect the target on the distant approaches to the installation (the early detection of aerial targets system, including aircraft with surveillance radar sets). Finally, the ground warning and fighter guidance system is being constantly refined (in the direction of centralization and automation). The battle-tested rule that the advantage goes to the one who detects his enemy first and attacks him suddenly is taken into account here.

FOOTNOTES

1. During the Great Patriotic War fighter planes were equipped with RSI-3, RSI-4, and RSI-6 radio sets. The RSI transmitter could maintain communications with an RAF airfield radio set to a distance of 140 kilometers and receive out to 100 kilometers.

2. STALINSKIY SOKOL 9 February 1944.
3. TsAMO [Central Archive of the USSR Ministry of Defense], Fund 112, Inventory 158791, File 1, Sheet 65.
4. Ibid., Fund 3, Inventory 514446, File 6, Sheets 138-143.
5. "Taktika Istrebitel'noy Aviatsii" [Fighter Aviation Tactics], Voenizdat, 1947, p 83.
6. VOYENNYI ZARUBEZHNIK 1972 No 3, p 22.
7. [Russian text contains no footnote 7].
8. AVIATSIYA I KOSMONAVTIKA 1968 No 6, p 3.
9. [Russian text contains no footnote 9].
10. ORDNANCE 1968 No 11, p 42.
11. AVIATION DAILY 1966 No 3, p 31.
12. STRATEGIE 1971 No 1, p 37.
13. NATO'S FIFTEEN NATIONS 1971 No 2, p 53.

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