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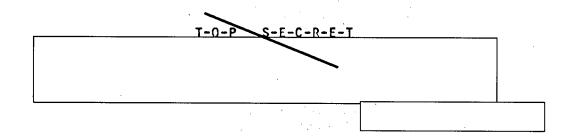
SOURCE Documentary Summary:

> The following report is a translation from Russian of an article which appeared in Issue No. 2 (90) for 1970 of the SECRET USSR Ministry of Defense publication <u>Collection of Articles of the</u> <u>Journal "Military Thought</u>". The author of this article is Colonel-General of Aviation S. Zhukovskiy, Honored Military Pilot of the USSR. This article discusses the problems and actions involved in the movement of an air army from one <u>front</u> area to another. The basic problems identified include coordination between the two air armies of the adjacent <u>fronts</u>, Intelligence exchange, nuclear munitions supply procedures and communications support. In an exercise, such a move was carried out in ten hours by sixty-seven AN-12 aircraft. This article appeared in Issue No. 2 (90) for 1970. <u>End of Summary</u>

> > <u>Comment</u>:

Col.-Gen. S. Zhukovskiy was Commander of Aviation of the Belorussian Military District in 1965. His more recent articles are about the work of a methods council in an air unit for <u>Aviatsiya i Kosmonavtika</u>, No. 9, 1970; on Soviet air forces during World War II for <u>Sovetskava Belorussiva</u>, 2 May 1970; and about flight safety in <u>Red Star</u>, on 7 January 1970. In 1971 he was elected a full member of the Belorussian Central Committee at the 27th Congress of the Communist Party of Belorussia. <u>Military Thought</u> has been published by the USSR Ministry of Defense in three versions in the past -- TOP SECRET, SECPET, and RESTPICTED. There is no information as to whether or not the TOP SECRET version continues to be published. The SECRET version is published three times annually and is distributed down to the level of division commander.

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Move of an Air Army into the Zone of an Adiacent Front in a Strategic Operation in a Theater of Military Operations by

Colonel-General of Aviation S. Zhukovskiy, Honored Military Pilot of the USSR

In a strategic operation conducted in a theater of military operations, situations frequently can arise wherein the organic aviation forces and rocket troops of one <u>front</u> or another will be insufficient for the successful and, most important, timely accomplishment of its assigned missions. A systematic process in the conduct of a strategic operation requires the additional reinforcement of this <u>front</u> by not only the Supreme High Command reserve, but also the timely assignment of forces and means from other <u>fronts</u> participating in the operation.

Air and missile strikes can be conducted to assist an adjacent <u>front</u> under conditions of nuclear war. In the non-nuclear period, only aviation will be responsible for these targets and missions for the most part.

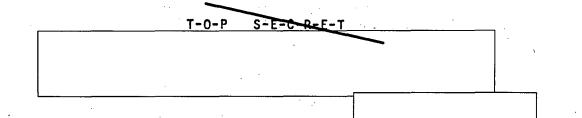
During World War II, formations of the air forces repeatedly assisted an adjacent <u>front</u> which was advancing on the main axis and which was repelling the attacks of superior enemy forces or conducting an operation to destroy large encircled groupings.

In modern warfare, a move into the zone of an adjacent <u>front</u> to deliver strikes against enemy troops and targets will be even more characteristic of an air army of <u>front</u> aviation. The wide use of nuclear weapons, coupled with the increasing mobility of all arms of troops, will lead to abrupt changes not only in the tactical, but also in the operational situations over vast territory. The impact of these changes cannot be localized in the zone of any one <u>front</u>, but inevitably spreads to adjacent <u>fronts</u>, requiring combined concentrated efforts in order to

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achieve the decisive goals of the strategic operations being conducted.

Constant attention is given to the problems of working out moves by aviation into the zones of other <u>fronts</u> (both adjacent ones and those not located in the given theater of military operations) in the operational and combat training of air forces formations. Aviation units repeatedly made practice flights to the maximum range, landed at the airfields of other military districts, accomplished missions of a combat nature in new, unfamiliar areas, and subsequently returned to their own military district territory. The organization of a move by an aviation formation over great distances has been worked on in a theoretical plan for several years.

The purpose of this article, with due consideration to practical experience, is to shed some light briefly on the special features of organizing, accomplishing, and supporting the move of an air army into the zone of an adjacent <u>front</u> to assist it in carrying out its assigned missions in a strategic operation.

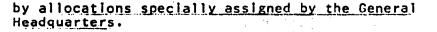
Combat actions in the zone of an adjacent front, as a rule, are combined, coordinated actions of the air armies of two or several fronts, and of long-range aviation large units; and, in a nuclear war, that of operational-tactical and strategic rocket troops as well.

An air army moves into the zone of an adjacent <u>front</u> in accordance with the appropriate directives of a higher command to carry out the most important missions, whose importance often concerns more than one <u>front</u>. The most probable of these missions are: the delivery of strikes in accordance with the operations plan to destroy enemy air groupings; the participation in a massive strike conducted to support an adjacent <u>front</u> going over to the offensive; the destruction of operational-tactical missile/nuclear means; and the neutralization and destruction of enemy counterstrike groupings and large operational reserves.

Depending on the specific situation which is developing, an air army can move with all its combat strength or with only part of its forces. Air army actions in the zone of an adjacent front will be conducted both with the flight resources and nuclear munitions of that front and

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We will examine one of the possible variants, in which an air army moving into the zone of an adjacent <u>front</u> details only part of its forces--from one-third to two-thirds of its combat strength--and uses special allocations of flight resources and nuclear munitions in its actions.

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When an air army has available, for example, one bomber aviation regiment, one fighter-bomber aviation division, two fighter aviation divisions and one reconnaissance aviation regiment, its strike capabilities in the zone of an adjacent front will comprise:

- up to two bomber squadrons (including 10 to 12 delivery aircraft), which, with the use of nuclear munitions, are capable of destroying 60 percent of the aircraft at two or three tactical aviation airfields and neutralizing one division of enemy ground forces by destroying 30 to 40 percent of its manpower and equipment;

- up to two fighter-bomber aviation regiments (including 10 to 15 delivery aircraft), which, with the use of nuclear munitions, are capable of neutralizing two to three motorized infantry battalions by putting 20 to 25 percent of its manpower and equipment out of action, and of destroying 8 to 10 other separate targets (guided missile and free rocket battalions and batteries); and, with the use of conventional means, of neutralizing 4 to 6 Hawk surface-to-air missile batteries and 3 or 4 radar stations.

- up to one fighter aviation division to provide cover for its bombers and fighter-bombers at airfields and in flight in the FEBA, with part of its forces used to neutralize and destroy ground air defense means;

- one or two reconnaissance squadrons to conduct aerial and final reconnaissance of targets in preparation for and during strikes.

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The remaining air army forces will perform urgent missions in the zone of their own <u>front</u>.

It should be noted that in actions with only conventional means of destruction, the power, and consequently the effectiveness, of strikes delivered by the aviation complement given above may prove to be insufficient and may not achieve the desired decisive effect on the enemy in the zone of the adjacent <u>front</u>. Therefore, in anticipation of the possibility of relatively prolonged actions with only conventional means of destruction, a corresponding increase in the air army combat strength (while maintaining the delivery aircraft in a state of constant readiness for nuclear strikes) will be required.

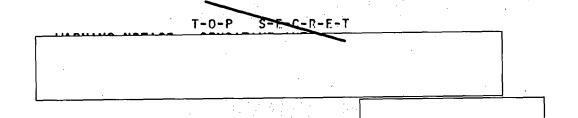
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The special features of organizing an air army move into the zone of an adjacent <u>front</u> result from the need for strict coordination of its combat actions with strike deliveries not only by the rocket troops of its own <u>front</u>, as is usually done, but also by aviation and rocket troops of the adjacent <u>front</u>, as well as by long-range aviation large units if they are participating in the operation.

The basic work of organizing and planning joint actions, in our opinion, must be carried out under the direction of the troop commander of that <u>front</u> in whose zone these actions are being planned, and must involve the direct participation of the commander and staff of the air army of this <u>front</u> and of the operational groups from assigned formations and large units.

An operational group from an air army operating in the zone of an adjacent front is headed by the commander or the chief of staff. Within a compressed time frame (within one day) it must solve and document all problems connected with the organization of an air army move, plan combat actions for the delivery of strikes, and issue the necessary orders to the aviation and supporting large units and units. For the timely and qualitative accomplishment of this work it is desirable to include in the operational group the chiefs of the operational department, reconnaissance, the sixth group, the radio-electronic countermeasures service, the eighth department, and of communications and radar support troops, plus the chief navigator, the deputy air army commander for the rear (or the chief of staff of the rear), the deputy air army commander for the aviation-engineer service, as well as the minimum required number of officers of these departments and services.

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The following are the basic problems solved in organizing the move of an air army and planning combat actions in the zone of an adjacent <u>front</u>:

- the allocation of combat tasks among formations, large units and units participating in joint actions; the coordination of combat actions by place and time; the allocation of airfields for the move of aviation large units and units; the selection of the most suitable means of destruction and the determination of aircraft to be used; and the determination of the overall operational disposition, combat composition, flight routes and profiles, flight corridors, and the procedure for the joint use of radio-navigational means;

- the conduct of aerial reconnaissance in support of planned joint actions, and the procedure for exchanging intelligence information;

- radio-electronic countermeasures and the neutralization of enemy air defense means;

- the operational camouflage and protection against weapons of mass destruction; and the cover, protection and defense of airfields to which the move is to be made in the zone of the adjacent <u>front</u>;

- special support (the procedure for the delivery, preparation, and issue of nuclear munitions);

- aviation-engineer, materiel, and airfield-technical support to aviation units making the airfield move in the zone of the adjacent <u>front</u>;

- the organization of the control and joint use of the means of communications and of radiotechnical flight support.

The methods of solving these problems are based on established principles in our operational art and are set forth in appropriate manuals and regulations. At the same time an air army move into the zone of another (adjacent) front differs considerably from conventional actions in the zone of its own front; its organization has its own distinctive features.

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Depending on the specific conditions of the situation, fronts coordinating in a strategic operation will have a different relative disposition, which will greatly influence the conduct of the air army move. The adjacent <u>front</u>, into whose zone the move is made, can lag behind the other <u>fronts</u>, be located on the same line with them, or move ahead. This means that to accomplish the task assigned to an air army, either preliminary rebasing of aviation units will not be required at all, or their partial or even full rebasing will be required not only in the zone of their own <u>front</u> but also in the territory of an adjacent <u>front</u>.

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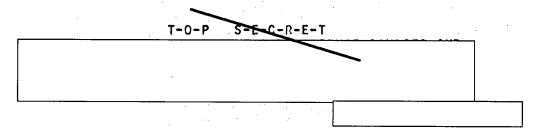
In allocating combat tasks to aviation units of an air army assigned to assist an adjacent <u>front</u>, it is desirable to designate targets in areas immediately adjoining the zone of the <u>front</u> to which this air army belongs; this will permit somewhat of a reduction in the number of rebased aviation units and avoid undesirable intersecting of flight routes by the aviation of various formations.

Combat actions in the zone of an adjacent <u>front</u> must be coordinated chronologically with due consideration for the need to <u>achieve the greatest surprise</u> and effectiveness of strikes, to neutralize enemy air defense means, and to destroy his control system. Under conditions of a nuclear war this can be achieved by a surprise missile salvo on the most important targets, including the principal control posts, followed by air strikes from low and extremely low altitudes, along with massive combined radio jamming. Strike effectiveness and surprise are achieved in the non-nuclear period of the war by massing aviation on the main axis and allocating more significant forces to neutralize the air defense means and control system of the enemy.

The operational composition of aviation is determined with due regard for the nature of its tasks and the capabilities of all forces and means participating in the strikes, the time of day and weather conditions, as well as the distance and relative location of targets and the anticipated enemy counteraction. The operational composition of an air army, as a rule, consists of two echelons--support and strike.

included in the support echelon are groups of aircraft for radio-electronic countermeasures, target reconnaissance

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and final reconnaissance, for the neutralization of ground air defense means, and for diversionary (distractive) purposes. The strike echelon includes groups of bombers, fighter-bombers, and fighters, which accomplish the principal air army tasks by striking assigned targets. In turn, the combat makeup of aviation large units and units participating in the strikes also includes two types of tactical groups--support and strike.

Aerial reconnaissance in support of strikes in the zone of an adjacent front begins immediately upon receipt of directives to move an air army into the zone of the adjacent front. It is conducted by the combined efforts of both air armies (its own and that of the adjacent front), and the acquired reconnaissance data are sent, first of all, to the command post of the adjacent front where the combined strikes of the various formations and large units are being planned. The necessary information on targets designated for destruction, as well as information on enemy air defense means and his control system in the zone of impending actions, must be obtained during a short period of time (usually less than 24 hours). This is achieved by continuously conducting aerial reconnaissance, by precisely adjusting mutual information on the enemy, and by purposefully using all intelligence data obtained by other forms of reconnaissance. Two or three hours before the strike, aerial reconnaissance issues target photomosalcs to participating aviation units for the final clarification of commanders' plans and of the preflight preparation of air crews, to ensure the highest possible strike effectiveness.

Regardless of how complete the information is that was obtained by reconnaissance during the organization of combat actions, final reconnaissance of targets is organized immediately before and during the initiation of the strike. Its main task is to guide the strike groups to the targets. This may be accomplished by marking targets with marker-signal aerial bombs (day -- DOSAB and night --NOSAB), and by transmitting target information by radio to strike group commanders either directly or through aviation unit command posts. Crews and groups conducting the final reconnaissance of aviation targets usually are composite elements in the combat makeup of aviation units.

When an air army is moving into the zone of an adjacent front, radio-electronic countermeasures are coordinated with

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the forces and means of two or three coordinating <u>fronts</u>. Enemy radiotechnical means in the strike zone and on the flanks are neutralized only in this way, which on the whole is conducive to decreasing enemy air defense counteraction and disrupting the operation of his control posts.

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Special support of air army delivery aircraft units, as a rule, is accomplished by its organic special units. Depending on the situation, brigades of special units with the necessary equipment can be transferred to maneuver airfields by helicopter or by transport aircraft. In individual cases, brigades of special units of an adjacent front air army should be assigned to support delivery aircraft. In the preliminary rebasing of the aircraft to the zone of an adjacent front, they will, as a rule, fly with suspended nuclear bombs. Nuclear bombs for a repeated flight from maneuver airfields are better obtained from the nearest depots.

Procedures for the materiel, airfield-technical, and radiotechnical flight support of aviation units temporarily rebased to the zone of an adjacent <u>front</u> are highly complicated.

The organization and planning of an air army move, including the assignment of tasks to aviation large units and units, must not take more than a day. Approximately the same amount of time is required for the actual completion of the move, with the delivery of one or two strikes and the return of the aviation units to their own airfields. Such rigid movement time frames hamper the timely rebasing of support units (separate aviation-technical maintenance battalion, separate air radiotechnical support battalion) even though military-transport aviation units are used to transport them.

During the <u>Oder</u> exercise, an air division operational group with a fighter-bomber regiment and its support units moved to the zone of another <u>front</u>. The ground echelon of the regiment, the support units, and the operational group were transported there and back by a military-transport aviation division (67 AN-12). The exercise demonstrated that just the positioning, loading and takeoff of the transport aircraft, proceeding in three groups, will take at least five to six hours; and that the whole process of transporting this complement will require, depending on the



distance and under favorable weather conditions, at least eight to ten hours (and even longer if weather conditions are unfavorable), which can hardly be called a rapid move of an air army.

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It is our opinion that in wartime each air army must always have not only materiel reserves (aviation fuel, munitions), but also reserve rear area, communications, and radiotechnical support units, equipped with the necessary flight support means for various types of aircraft. The main purpose of this reserve will be to support sporadic actions of aviation large units and units of other aviation formations, as well as their own air regiments, in the event their organic support units go out of action.

The availability of reserve support units in the zone of an adjacent <u>front</u> greatly facilitates the move of an air army and its repeated take-offs from airfields where they are temporarily based. To support the actions of each air regiment will only require the additional transfer to the maneuver airfields of its technical-engineer detachments and reinforcement groups from support units, for which several transport aircraft for two to three hours will be adequate.

Reserve support units of an air army of an adjacent front should also be assigned to carry out measures for protection from weapons of mass destruction, camouflage, and the protection and defense of airfields while aviation units are temporarily based there.

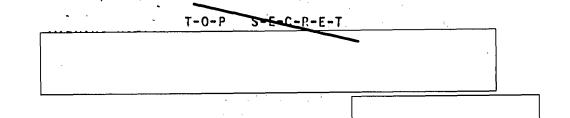
The control of air army forces and means assigned to move to the zone of an adjacent <u>front</u> is based on the operating system of command posts. At the same time, an operations group must function at the adjacent <u>front</u> air army command post until the assigned mission is completed in order to control aviation large units and units in their actions in the zone of the adjacent <u>front</u>; to coordinate with other formations and large units; to clarify combat tasks during abrupt changes in the situation; to organize return flights to the territory on their own <u>front</u>; and to coordinate the problems of materiel, airfield-technical, and other support.

At the time aviation units are temporarily rebased to maneuver airfields, they are joined by operations groups of aviation large units made up of ten to twelve men (as a

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rule, headed by an aviation large unit commander), which control the combat actions of aviation units throughout their stay in the territory of the adjacent <u>front</u>.

The maneuverability of operational groups is achieved by using specially equipped helicopters for their redeployment and for their work and by continuous control of them by radio-relay aircraft when command posts are at considerable distances from one another and when aircraft are operating at low and extremely low altitudes.

In conclusion it should be noted that the move of an air army of one front to the zone of another (adjacent) front, both under conditions of the use of only conventional means of destruction and in the event of nuclear war, is a typical operational mission which an air army will accomplish simultaneously while carrying out other, no less important, missions in direct support of its own front.

Having foreseen the magnitude of air army missions in its own <u>front</u> operations, its inevitable involvement in actions in the zones of adjacent <u>fronts</u>, as well as the probable conduct of combat actions with only conventional means of destruction during a certain period of time, it is essential that we have timely and practical resolution of a number of problems concerning the organization and the combat composition of an air army; the expansion of aviation equipment combat capabilities, and the improvement of all kinds of support and control.

In our opinion, an air army of <u>front</u> aviation must consist of a minimum of one bomber, two fighter-bomber and two or three fighter aviation divisions; and two reconnaissance, two or three helicopter, one or two radiotechnical, one transport, one mixed, and one or two medical aviation regiments. In addition, it must have at its disposal helicopter squadrons in accordance with the number of armies in the <u>front</u>, and aviation subunits (detachments, flights) of mobile control posts located on helicopters and of radio-relay aircraft. Rear area communications, and radiotechnical support troops of an air army should be provided with reserve support units and special equipment which are transportable by air.

The problems of organizing an air army move into the zone of an adjacent <u>front</u> are worked out theoretically and

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