OPERATIONAL EMPLOYMENT OF AIRBORNE FORCES: THE SOVIET APPROACH AND THE IMPLICATIONS FOR NATO

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ABSTRACT

OPERATIONAL EMPLOYMENT OF AIRBORNE FORCES: THE SOVIET APPROACH AND THE IMPLICATIONS FOR NATO, by Major Lloyd W. Sherfey, USA, 53 pages.

This monograph examines the Soviet concept for the operational employment of airborne (parachute) forces and the implications of this threat for NATO planners. As background material the study first examines the pre-World War II evolution of Soviet airborne doctrine in relation to the evolving Soviet concept of deep battle. Proceeding to the wartime era, two examples of Soviet operational airborne employments are analyzed: the assaults of Vyzama and at the Dnepr River. The study then reviews the post-war era during which major Soviet advances in technology finally resulted in a force capable of meeting the expectations of the early Soviet theorists.

The second portion of the mongraph reviews the current Soviet airborne organization in terms of equipment and lift capability, and then assesses the most probable modes of employment in a NATO/Warsaw Pact conflict. Among the conclusions drawn are the following:

a) The majority of Soviet airborne insertions will be operational (as opposed to tactical or strategic).

b) Employment will occur very early in the conflict.

c) The four most likely targets are logistical facilities, key terrain, reserves, and airfields.

d) Operational employments will consist of several massive insertions (up to division size) rather than numerous small ones.

The final section of the monograph assesses the implications for NATO and concludes that while existing rear battle doctrine and literature are adequate, there is a dangerous lack of emphasis on this threat. The study further recognizes that in order to counter this threat, planners will have to make difficult choices regarding the diversion of assets needed for the close battle. Nevertheless, current Soviet literature and doctrine leaves little doubt that operational airborne insertions will occur, and it is imperative that NATO planners begin to address this issue.

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SECTION I: INTRODUCTION

> Where is the Prince who can afford so to cover his country with troops for its defense, as that 10,000 men, descending from the clouds, might not, in many places, do an infinite amount of mischief before a force could be brought to repel them?
>
> Benjamin Franklin[1]

While the aerial insertion of military forces has long been a dream of military planners, it required the technological progress of the Twentieth Century to transform this vision, like so many others, into reality. The closing year of the First World War saw the first plan for the employment of parachute forces, a concept developed by Colonel Billy Mitchell to break the deadlock of trench warfare by an airborne assault to the rear of Metz. Ultimately the plan was cancelled before the envisioned date of the operation and it would, at any rate, have seriously challenged the technological means available at that time.[2]

In the post war era American interest in the theory of airborne troop employment waned, as did the influence of Mitchell. Interestingly Mitchell failed to press the airborne issue after the war, perhaps because he feared diverting attention from his quest for a potent air force. Other nations, however, realized the potential of the concept to include the Soviet Union. On 2 August 1930 an exercise involving twelve men was conducted, marking the official birthday of the Soviet airborne force. Growing to the world's largest airborne force on the eve of World War II, it was relegated to a position of relative unimportance during the wartime and early postwar eras. Since then it has reemerged as the largest, most powerful airborne force in the world, whose concept of operational employment will be the focus of this study.[3]

As a point of departure it is worthwhile to reflect upon today's relative lack of concern for the Soviet airborne threat. While the current

edition of FM 100-5, Operations, stresses the non-linear nature of the future mid-to-high intensity battlefield and the critical importance of rear battle, the Soviet airborne threat is often overlooked or given minimal attention in current literature, perhaps in part because of the current "fixation" on the Operational Maneuver Group (OMG). A second reason may be our preoccupation with the Soviet Spetsnaz threat (due in part to the tremendous resurgence of interest in our own Special Operations Force capability). Finally, the lack of significant employment of airborne forces by the Soviets in World War II may contribute to the neglect of this capability. If so, then it represents a classic case of drawing the wrong lessons from history as this study will attempt to point out. Assuming the Soviets initiate hostilities in a NATO scenario, they will, in the early stages of the conflict, possess a degree of initiative favoring their use of airborne forces, and Soviet doctrinal literature clearly anticipates the potential for employment at the tactical, operational, and strategic levels of war.

This study will examine the Soviet concepts and doctrine for the operational employment of their airborne forces. As a point of departure and as a theoretical foundation for the discussions which will follow, it is therefore necessary to establish an understanding/definition of the term operational employment from the Soviet perspective. A degree of understanding is obtained by referring to FM 100-2-1, The Soviet Army: Operations and Tactics which in a discussion of Soviet military art defines the operational level of combat activity as belonging to the domain of fronts and armies. This FM further explains that in the Soviet view an operation means an activity involving at least an army or a front tailored for that specific mission (hence executed by its divisions/armies). Lastly it is pointed out that in the Soviet view, first

echelon divisions pursue tactical objectives while armies achieve operational objectives (by use of their second echelon divisions).[4] This coincides with the Soviet linkage between levels of war and depth, with tactical depth being defined as enemy divisional rear boundaries and immediate operational depth as the enemy corps rear area (the objectives of the first and second echelon divisions, respectively, of the lead armies).[5] See Annex A (2 pages).

At this point one might assume (in the absence of a strict definition) that the Soviets would define operational employment as the utilization of large units (at least division size) against objectives in the enemy's operational depth. An additional perspective, however, and one particularly germane to this study is found in FM 100-2-2, The Soviet Army: Specialized Warfare and Rear Area Support, which states that in the case of airborne units, missions are categorized as either strategic, operational, tactical, or special in accordance with three criteria: objective depth, objective importance, and the size force employed. With regard to operational missions, it is pointed out that while fronts and armies control operational airborne missions, they may be conducted by units ranging from division down to battalion size, acting in conjunction with front or army operations, and expecting linkup within several days.[6] It is therefore apparent that the Soviets believe the unique capabilities of their airborne forces enable them to accomplish missions whose operational significance is far greater than would normally be associated with a unit of that size (as small as battalion). Using the data presented above, we will define Soviet operational employment of airborne units as the utilization of battalion and larger size units to facilitate the success of front and army offensives through seizure/destruction of objectives within the enemy

operational depth (the enemy corps or Army Group rear areas) which are vital to the accomplishment of the front/army mission.

Having established a theoretical/doctrinal point of departure, the following portions of this paper will review the pre-World War II evolution of Soviet airborne doctrine, Soviet World War II airborne missions (operational level), and the post war evolution of Soviet airborne doctrine to its present state. Using this background material and a review of the current Soviet airborne force structure, the following research question will be addressed:

> What will be the nature and scope of Soviet airborne force operational employment in a future NATO conflict?

Finally conclusions and implications for NATO/U.S. planners will be drawn. Due to the limited length of this study, other Soviet forces with deep battle operational roles must be omitted to include Spetsnaz, Air Assault forces, and Naval Infantry. The operations of such units may, however, be briefly covered in those cases where they would complement or coordinate with conventional Soviet airborne forces.

SECTION II: THE PRE-WAR BEGINNING

This chapter will provide an overview of the evolution of Soviet airborne doctrine from its inception to the eve of World War II, and in doing so will demonstrate that Soviet attention to this form of warfare has been more comprehensive than is generally perceived. The evolution of Soviet airborne doctrine must be seen as being inseparably linked with the evolution of the modern Soviet deep battle concept. During the Twenties the concept of a doctrine dedicated to maneuver as postulated by Frunze began decisively to influence the Soviet military establishment. The Field Regulation of 1929

officially established the concept of conducting deep battle through combined arms forces, although the technical means (the tank and airplane) were only just beginning to materialize in terms of adequate capability (one must remember that Soviet theory often precedes technological capability). This vision of deep battle would fuel and drive Soviet airborne development all the way to the eve of World War II.[7]

One of the leaders in the founding of airborne doctrine was M. N. Tukhachevsky whose work was supplemented by that of Generals A. N. Lapchinsky and N. P. Ivanov. By the end of the twenties these individuals and others were exploring concepts for the employment of airborne units up to regimental size.[8] On 2 August 1930 the Soviets conducted their first military airborne exercise in Tukhachevsky's Leningrad Military District and this initial experiment was rapidly followed by the creation of airborne detachments in other districts as well.[9] Further impetus was added in 1932 when Tukhachevsky published an article investigating the "New Question of War" in which he envisioned both tactical and operational roles for airborne units throughout the depth of the enemy defense. As a result of his work and the efforts of others, the development of true airborne units began with a 1932 order creating an airborne brigade from the Leningrad Military District airborne detachment.[10]

On 15 June 1933 "Temporary Instructions on the Combat Use of Aviation Landing Units" was published which categorized airborne assaults as either operational (regiment or brigade size assault against objectives in the enemy's operational depth) or tactical (company or battalion size assaults into the defender's tactical depth). Of note is the emphasis this document placed on the use of parachute forces in mass to compensate for the limited types of weaponry which could be carried.[11] From this point efforts at creating the new force

proceeded quite rapidly: in 1934 a force of 900 airborne troops were dropped in a Belorussian Military District exercise; in 1935 a force of 1800 troops was air dropped, followed by 5700 airlanded troops with heavy equipment; and in 1936 a 2200 man force was air dropped in the Moscow Military District exercises.[12] (It would be another four years before the United States, driven to action by the German paratroop successes in Western Europe, would finally form a fifty man test platoon.)

The Field Regulation of 1936 represented the culmination of Soviet pre-war doctrinal thought and defined deep battle as:

> ....the simultaneous assault on enemy defenses by aviation and artillery to the depth of the defense, penetration of the tactical zone of the defense by attacking units with wide use of tank forces, and violent development of tactical success into operational success with the aim of complete encirclement and destruction of the enemy. The main role is performed by the infantry, and in its interests are organized the mutual support of all types of forces.

This same regulation also prescribed the deep battle role for airborne forces as follows:

> Parachute landing units are the effective means...disorganizing the command and rear services structure of the enemy. In coordination with forces attacking along the front, parachute landing units can go a long way toward producing a complete rout of the enemy on a given axis.[13]

(See Schematic: Use of Airborne Forces, 1936, Annex B)

Stalin's purges of the late Thirties resulted in the execution of many of the theorists and leaders who pioneered the concept of deep battle through use of airborne and mechanized forces (including Tukachevsky). It is significant

that the expansion of the Soviet airborne force continued at a rapid rate, but subsequent doctrinal publications merely reflected the concepts in the Regulation of 1936.[14]

Turning to a look at actual force structure, the largest airborne unit in the Soviet inventory in 1940 was the brigade, a 3,000 man force containing parachute, glider, and airlanded (by transport aircraft) combat groups. By 1941 a total of six brigades had been formed but the glider and airlanded forces were eliminated because of shortages in gliders and transport aircraft. In April of that same year the airborne force expanded, creating five airborne corps containing three brigades and 10,000 men each (Note: Soviet use of the term "corps" in this instance equates to a division size unit.) By the end of the year 1941, according to Soviet sources, there were approximately 200,000 trained airborne troops in the Soviet army, and additionally, state sponsored civilian parachute clubs had produced a huge base of potential recruits.[15]

On the eve of World War II, the 1940 Red Army Field Regulation addressed airborne forces as follows:

> ....VDV (Airborne Forces) are an instrument of higher command used to accomplish those missions in the enemy rear which cannot be accomplished at the given moment by other combat means, but which if carried out might have a serious effect on the outcome of the entire operation or battle. The VDV must be employed unexpectedly on the enemy and in large numbers. They must be used independently and in coordination with ground, air, and naval forces carrying out the given operation. (Note the continued emphasis on employment in mass, first seen in the Temporary Instructions of 1933)

Additionally the regulation outlined the following specific missions:

1) Disrupt the enemy rear by attack of headquarters.

2) Destruction of means of command and control.
3) Interrupt the movement of troops, ammunition, and supplies.
4) Capture/destroy airfields.
5) Support naval landings by seizure of coastal areas.
6) Reinforce encircled troops.
7) Reinforce mobile units operating in the enemy's operational depth.
8) Engage enemy airborne landings in the Soviet rear.[16]

The Soviets were about to enter combat with the world's largest airborne force and a relatively sophisticated theory of employment. The results, however, were to prove somewhat disappointing.

SECTION III: WORLD WAR II - TRIAL BY FIRE

In assessing the conduct of Soviet operational airborne actions against the forces of Nazi Germany, it should be pointed out that the Soviets had already made limited use of their paratroops. Soviet airborne forces had seen some combat in the Russo-Japanese conflict of 1939 and in the Russo-Finnish war as well, but strictly as ground assault forces. A true operational employment was conducted, however, during the Soviet occupation of Rumanian Bessarabia in June 1940. In true operational fashion, airborne forces were given the missions of cutting the lines of withdrawal for Rumanian forces and preventing their destruction of supplies and property. Using elements of three airborne brigades, the Soviets used airdrops to seize the towns of Bolgrad, Kagul, and Izmail. In reality, however, the operations were virtually unopposed and bore greater resemblance to pre-war maneuvers than to true combat.[17] Meanwhile the Soviets had taken notice of the successful German airborne assaults in Holland and Belgium as evidenced by the following remark by General Timoshenko in December 1940:

> ....the experience of the World War II in the west showed that the high tempo and success of an operational offensive were

> secured by massive use of tanks, aviation, and artillery in cooperation with motorized forces and airborne forces. The development of a tactical penetration into an operational-strategic one was made possible by introduction of mobile forces into the penetration and by operations of airborne forces.[18]

When war erupted between the Soviet Union and Nazi Germany in June 1941, a large percentage of the Soviet aircraft which would have been destined to support large scale airborne operations were quickly destroyed. Of necessity the aircraft that remained were, as a rule, dedicated to the support of the more traditional ground combat units. Additionally, most of the Soviet airborne units were quickly committed as regular infantry to assist in halting the German drive on Moscow.[19] The severe losses of these highly trained forces caused the Soviets to reassess their role and dictate their future employment under the direction of Stavka in five roles: cooperation with ground forces in encirclement operations; attacks on enemy LOC's, C^2, and rear areas; seizure of key terrain in the enemy rear; capture/destruction of airfields; and to secure river crossings and naval landing sites. (These employment concepts would be, at times, overruled by necessity.)[20] Additionally the Soviets quickly moved to rebuild their airborne force. By reconstituting their original five airborne corps and creating five new ones, they had raised airborne strength to 200,000 troops by the end of 1941.[21] The remainder of this section will assess the two Soviet World War II attempts at true operational use of their airborne forces, at Vyzama and at the Dnepr River, and the impact on Soviet military thought.

The first true attempt at operational employment was from January to April 1942 in the vicinity of the city of Vyzama. The operational mission assigned to the 4th Airborne Corps was to cut the German LOC's between Smolensk and Moscow (to ease pressure on Moscow) while the tactical missions were to be the ambush

of convoys, attack of logistical units, and provision of assistance to (or formation of) partisan units.[22] This airborne operation was to facilitate a larger Soviet operation in which the Soviet 32d Army would attack westward, engaging the 4th Panzer Army and other German elements in the Vyzama area, which would then be struck by a second Soviet army attacking from the southeast. The airhead held by the airborne troops would be reinforced by airland operations and divert attention from the main attack.[23] See Annex C, map.

The airborne operation commenced on the night of 3-4 January 1942 when a battalion dropped at Myatlevo to seize the airstrip. Poor weather and pressure by the Germans, however, prevented airland operations on 5 January, and on 6 January the Soviets were forced to cancel this part of the operation because the aircraft being held on standby had to be committed elsewhere. The paratroops at Myatlevo fought a two week guerrilla action and then exfiltrated. On 17-18 January two battalions dropped at Lugi (south of Vyazma). Landing unopposed they cleared the airstrip and airlanded supplies/reinforcements for five nights. On 27 January after contact had been made with lead elements of the 33d Army, the Soviets committed a major portion of the 4th Airborne Corps. Unfortunately aircraft resources permitted dropping only one battalion at a time. Poor accuracy caused units to miss their DZ's by as much as ten miles and large amounts of equipment were lost. German reaction increased against the airstrips held by the Soviets and by 1 February, German Mobile Groups had located and destroyed or fragmented most Soviet pockets. When the 33d Army attacked on 3 February, it was caught between elements of two German armies whose attention the airborne operations had failed to divert. On 23 February the Soviets dropped and airlanded an additional 7,000 men and supplies. Although fragmented there were by German estimates 15,000 to 20,000 Soviet airborne troops in the

Vyazma area by this time, reinforced by General Belov's 1st Guards Cavalry Corps of 15,000 mounted infantry. By 7 March the Germans were forced to commit an additional Corps to this rear battle which proved sufficient. On 25 March the final effort against the 33d Army was launched by the Germans and the airborne and cavalry elements were hunted down and destroyed (with some units holding out until June).[24]

In retrospect the Vyazma operation may, at the broadest level, be viewed as an imaginative attempt at deep operations and operational employment but one which was poorly executed. Coordination between the airborne force and main link up force was poor. (The Soviet ground forces moved so slow in this regard that the Germans were confused as to the actual airborne mission.) Aviation support was insufficient and navigation/delivery techniques were poor. Logistical support was inadequate and the paratroopers lacked the heavy weapons and mobility to deal with the German mobile groups. Prior reconnaissance failed adequately to assess enemy strength, and finally communications were inadequate for either assembly or coordination.[25]

Following the failure at Vyazma, Stavka in the summer of 1942 converted all ten airborne corps to guards rifle divisions and deployed them south as part of the strategic reserve against the German offensive which would culminate at Stalingrad. Realizing a need, however, for an airborne capability, Stavka created eight <u>new</u> airborne corps in the fall of 1942 and further converted them to guards airborne divisions in December of that year. Between April and May 1943 Stavka also formed twenty airborne brigades. By September 1943 most had been formed into six additional guards airborne divisions, but a few independent brigades were retained and destined to take part in the Soviet's second attempt at operational airborne employment -- at the Dnepr Loop.[26]

In the autumn of 1943, following the reverses at Stalingrad and Kursk the German forces (Army Groups Center and South) were withdrawing under pressure to a defensive line on the Dnepr River (this move was approved by Hitler on 15 September). The Soviets, desiring to prevent the Germans from consolidating their defenses, elected to employ airborne forces to seize a bridgehead on the west bank which could disrupt German crossing efforts and permit pursuing Soviet units to cross from the march. The area chosen was the Dnepr Loop (so named for the river's shape at this point) where the Soviets felt strong partisan forces would be of assistance.[27] The Soviet plan, set for the night of 23-24 September 1943, intended to employ the 1st, 3d, and 5th airborne brigades to secure a bridgehead which would then be expanded and fortified to seal off a sector of the river from Kanev to Trakhtomirov. Initial planning for the operation had been quite detailed with provision made for aerial recon of the target area, bomber attacks on enemy positions, and close air support for the actual operation. On 21-22 September small Soviet infantry units gained weak lodgements on the west bank. The airborne plan which would have protected and strengthened these bridgeheads became unhinged however when bad weather and breakdowns in troop movement to the airfields prevented proper staging of all three brigades. As a result Marshal Vatutin ordered the drop be made on the night of 24-25 September with only the two brigades available (3d and 5th) instead of the original three. See Annex D, map. Concomittant changes in objective areas totally destroyed the previous planning effort and left inadequate time for unit coordination. Of even greater consequence was the fact that bad weather had prevented adequate aerial reconnaissance. While the Soviet commanders assumed the German forces in the objective area to be weak, in fact the 24th Panzer Corps (57 ID, 34 ID, 112 ID, 10 Motorized Division) had crossed

into the area, and the 19th Panzer Division was moving from Kiev to reinforce the Dnepr Loop area. On the night of the drop the 57th and 112th Divisions were in defensive positions and the 19th, 34th, and 10th enroute -- on axes through the two brigades' drop zones.[28]

Meanwhile at the departure airfields poor planning and coordination had completely disrupted aircraft load plans, and inadequate fueling capability caused aircraft to take off in improper sequence. As in the Vyazma operation, drop accuracy was extremely poor. Some 4575 men of the 3d and 5th Brigades with only light weapons were scattered throughout the Dnepr Loop area and were engaged by heavy German ground fire. Large numbers of paratroopers landed virtually on top of the 19th Panzer Division. Communication difficulties compounded assembly attempts and in the following days German mobile detachments continued to hunt down groups of paratroopers. Throughout October and November the larger groups offered resistance but as organized brigades the units (and the operational plan) were destroyed on the night of the drop.[29]

Like the Vyazma operation, the Dnepr Loop mission was a good operational plan from the doctrinal viewpoint. As with the Vyazma operation, it was plagued by insufficient aircraft (and poor employment of them), poor delivery technique, inadequate reconnaissance/intelligence, poor communications, lack of heavy weapons, and poor coordination with ground forces. The picture of a good intent, handicapped by poor staff planning and execution is echoed in a post war critique of Soviet airborne operations, written by German general officers for the U.S. Army (1952):

> From the strategic viewpoint it may be said that while the background of the parachute operation was obviously planned to provide cooperation with the Russian troops participating in the attack across the

> Dnieper, the Russian command lacked the necessary sensing for the timing, the area, and the feasibility, as well as a correct evaluation of the German forces in the organization of the joint operation. The whole action carries the stamp of dilettantism. Fundamentally the reasoning was sound, but apparently an expert was lacking to implement the plans. The operation was accordingly a failure.[30]

The Dnepr operation was the last Soviet attempt at operational employment. In late summer 1944 Stavka formed three airborne corps (true corps of three divisions each) and then combined them into an airborne army. As was often the case in the past, however, it was soon converted to a guards army and guards rifle divisions.[31] (Note: In addition to all of the previously named factors which contributed to the two operational failures, the constant instability caused by converting trained airborne units to ground forces and then raising new airborne formations must be seen as a great contributor to incompetence in operational planning and execution. This problem was further magnified by the fact that the pre-war purges had eliminated many of the officers with the competence and vision to plan operational airborne missions.) After the Dnepr operation, Soviet airborne units would only be employed in limited, tactical operations.

In spite of poor operational efforts Soviet thinkers continued to maintain a vision of operational airborne employment in deep battle roles. The new Field Regulation of 1944 was remarkably consistent with pre-war regulations stating:

> Airborne troops are means at the disposal of the High Command. They are characterized by a high degree to mobility, powerful automatic armament, ability to appear quickly and suddenly and to conduct battle in the rear of the enemy.

The regulation detailed the following airborne missions:

- Cooperate behind enemy lines with ground troops, jointly with partisan detachments, to encircle and utterly defeat the enemy and to combat approaching enemy reserves.
- Seize important enemy rear lines (boundaries) and crossings that protect enemy troops.
- Seize and destroy enemy air bases.
- Break up enemy rear command and control establishments.
- Protect seaborne troop landings by seizing coastal regions.[32]

While operational success had eluded the Soviets, they were to enter the post war period retaining a firm commitment to the airborne concept. In that new era, force stability and the impact of technology would eliminate many of the Soviet wartime shortfalls.

SECTION IV: POST WAR ERA

In the period immediately after World War II, the Soviets retained a significant airborne force, creating new airborne divisions from guards rifle divisions and consolidating independent airborne brigades into divisions. During the early post war years, this force totaled as many as ten divisions and contained a mixture of both parachute and glider troops. Two factors, however, prevented the airborne forces from attaining a primary status in the Soviet force structure. The first was Stalin's personal lack of confidence in airborne operations because of the World War II operational failures. The second, and more serious in the long term, was the lack of technological assets, specifically inadequate lift aircraft, insufficient heavy weapons, and limited ground mobility.[33]

Soviet front organization at this time contained a first echelon of combined arms armies, a mobile group, a second echelon, frontal aviation, and one to two airborne divisions. The concept for operational airborne employment envisioned deep operations (up to 100 km) in conjunction with at least a combined arms army, to exploit the success of the initial breakthrough. Due to the light immobile nature of the airborne forces, missions consisted of seizing and holding objectives until linkup, with no maneuver being envisioned. Paramount was seizure of water crossings on the main axis; other missions were to seize objectives which would aid in encirclement, and the blocking of enemy withdrawal or reinforcement. While the closing Stalin years saw the airborne forces gain limited benefits from improved AT guns, mortars, recoilless rifles, and some light vehicles, they were still handicapped by lack of mobility, armor, and heavy caliber artillery thereby making early link-up a necessity and perpetuating their secondary role.[34]

The second post war period of Soviet airborne evolution may be categorized as that period when nuclear war fighting dominated Soviet thought, and extended roughly from the time of Stalin's death (1953) until the end of the Sixties when the Soviet pendulum swung back toward conventional war concepts. Beginning with the premise that a future war would begin with a nuclear exchange, Soviet planners perceived a need for smaller, more mobile forces to exploit the effects of nuclear weapons. With regard to the ground forces, these changes began in the years 1954-55 when the tank army and motorized rifle division began to replace the more cumbersome mechanized army, mechanized division, and rifle division formations. Concurrent with this streamlining was an acceleration of technological weapons development resulting in new generations of tanks (T-55, T-62), artillery, ADA weapons, and vehicles. Simultaneously Soviet theorists

began to tailor operational airborne employment concepts to this new vision of war. Most importantly, the Soviets perceived a gap in the time between the execution of a nuclear strike and the time when ground units could reach the target area. The solution envisioned was the rapid insertion of airborne forces either to seize and hold objectives or quickly to destroy enemy forces remaining in the target area.[35] (Soviet doctrine envisioned the insertion of airborne forces as quickly as within fifteen minutes of detonation time.)[36] Additionally traditional missions of seizing water crossings, chokepoints, and other key terrain were retained. The capability to execute these new missions was greatly enhanced by rapid technological improvements in the airborne force structure which included new transport aircraft (AN-8 in 1956, AN-12 in 1961, AN-22 in 1965), assault guns (ASU-57 in 1957 and ASU-85 in 1962), BRDM's, ZU-23 AA Guns, improved artillery, and new trucks and light vehicles. Significantly Soviet experimentation with the helicopter began during this period. Finally, as this period closed, it was clear that Soviet thought regarding operational airborne employment was transitioning from passive, static missions to concepts based on maneuver. Writing in Military Thought in 1966, Colonels I. I. Andrukhov and V. Bulatnikov stated:

> An airborne force transported to the deep rear of the enemy must be able to conduct military operations without counting on linking up with the ground troops. The force itself or in conjunction with other such landing forces will constitute a unique operational group and will carry out all the missions previously assigned to it or which arise in the course of military operations. To do this, the troops which constitute the force need the same qualities which are inherent in the troops attacking from the front: a high degree of maneuverability and the possession of all types of weapons, equipment, and material

> means necessary to conduct long-range military operations both in conditions of the use of nuclear means by both sides and without such conditions. Only in this way will the dropping and landing of large numbers of airborne troops be of significance. It will justify the expenditure of the vast amount of forces and means which are needed to ensure landing....[37]

The increased Soviet emphasis on and dedication to the use of airborne forces during the late Sixties is perhaps best illustrated in the 1968 book, Voennaya Strategiya (Military Strategy) by Marshal Sokolovsky which stated:

> During the operation (the offensive), wide use will be made of tactical and operational airborne landings. These will have the task of solving problems of the most effective use of the results attained by massing nuclear strikes...(such as) capture of the regions were nuclear weapons are located, important objectives, river crossings, bridgeheads, mountain passes, defiles and the annihilation of strategic objectives which cannot be put out of commission in any other way. Helicopters will be used as the main means of dropping tactical airborne troops. Transport planes can be used for operational landings. To assure the landing of a large airdrop at a great depth, the enemy air defense must be neutralized by ECM (electronic countermeasures), air operations, and rocket strikes.[38]

By the end of the Sixties Soviet planners had begun to reconsider their single option (nuclear) concept of war fighting and the Seventies saw a return to concepts of conventional war (with a nuclear option). While previously Soviet ground forces had been lightened to permit the rapid exploitation of nuclear strikes, the new emphasis on conventional war produced a surge in technology as new equipment was fielded to increase the conventional combat power for front operations. New generations of tanks, artillery,

rockets/missiles, and a true infantry fighting vehicle (the BMP) appeared. With regard to airborne forces, the appearance of the IL-76 transport in 1974 significantly increased Soviet lift capability.[39] Even more important was the appearance of the BMD airborne amphibious infantry combat vehicle (AAICV). With its introduction in 1973 airborne units at last attained the mobility and firepower to conduct true maneuver warfare on the same scale as motorized rifle or light armored forces.[40] During this same period the Soviets began to look extensively at the advantages of helicopter inserted forces, recognizing that this means of insertion had several inherent tactical advantages compared to airdrop insertion and that it permitted the use of non-specialized troops (motorized rifle personnel) for some missions (primarily tactical). Additionally specialized air assault brigades with both tactical and operational potential were created as front level assets.[41] These new air assault concepts permitted helicopter forces to assume some missions that were previously the domain of airborne (parachute) forces. It was the impact of new technology and the "competition" of helicopter forces which shaped current Soviet airborne doctrine. (Note: Although some works use the term "airborne" in referring to both helicopter and parachute inserted forces, this paper uses it purely in the sense of parachute units -- those units comprising the Soviet airborne divisions and on whose operational employment this paper is focused.)

Today Soviet airborne forces are organized as an independent arm of service and are currently subordinate to the Minister of Defense (under wartime conditions they will fall under direct control of STAVKA). Soviet airborne divisions are kept at full strength with the highest quality troops, and are reported to have priority over even the strategic rocket and submarine forces in

selection of recruits. An indication of their prestige is the fact that the commander of Soviet airborne forces holds the rank of general of the army, the same as the commander in chief of land forces. It is also reported that the Soviets are considering transforming their airborne force into a sixth independent armed service, equal to the strategic rocket, ground, navy, air, and air defense forces.[42]

Soviet planners view their airborne forces as extremely valuable assets mandating judicious use. The incorporation of these forces into a plan will depend on three criteria: 1) whether their use will enhance the likelihood of surprise, deep penetration, and rapid exploitation, 2) the ability to achieve local air suppression, and 3) the availability of lift assets.[43] As was pointed out in the introduction, missions are categorized according to the size unit employed, depth of the objective, and importance of the objective. While the basic Soviet concept regarding operational use was briefly covered in the introduction, it will be worthwhile at this point to provide a summary of the concepts and missions inherent in all four types of Soviet employment options (strategic, operational, tactical, and special) as defined in current Soviet doctrine, thereby adding clarity to the operational employment analysis which will compromise the remainder of this paper.

a. Strategic Missions: These missions are established by STAVKA and executed under general staff control using division or larger airborne units to a depth of at least several hundred kilometers.[44] Such missions are intended to have a significant impact on the overall strategy of the Soviets and their opponents and would probably employ forces from other arms and services in addition to the airborne force itself. Specific missions, as stated by Soviet doctrine, include:

- Seizure of key administrative-political centers and industrial/economic regions.
- Disruption of enemy government and military control centers.
- Seizure of martime straits.
- Establishing a second front.
- Neutralizing one member of a coalition.
- Peacetime power projection.[45]

b. Operational Missions: Operational missions are controlled by fronts or armies using airborne units of battalion through divisional size (as allocated by STAVKA or the TVD), and operating at depths of 100 to 300 kilometers behind enemy lines.[46] These missions will be in conjunction with and in support of attacking units larger than division size and could include any of the following doctrinal tasks:

- Destruction of tactical nuclear weapons.
- Destruction of key facilities: headquarters, command posts, and commo facilities.
- Seizure of airfields.
- Seizure of ports.
- Destruction of logistical facilities.
- Seizure of key terrain: water crossings, road-rail centers, and mountain passes.
- Blocking on neutralizing enemy forces: either reserves or withdrawing units.[47]

c. Tactical Missions: These missions are established and controlled at division level. The Soviets prefer to use heliborne motorized rifle troops for such missions but if necessary the front may allocate true airborne forces of reinforced company or battalion size. Tactical missions include:

- Destruction of nuclear delivery means, command posts, and communications in the enemy's tactical depth.
- Seizing or destroying tactically significant regions such as road intersections, passes, and water crossings.
- Blocking enemy reserves.
- Destruction of airbases, storage sites, and pipelines.[48]

d. Special Missions: Special (unconventional warfare) missions are usually established by STAVKA but controlled by front and army commanders. Not

all airborne units are trained to carry out special missions nor are all such missions carried out by airborne units (examples of other elements available are KGB, GRU, and Spetsnaz personnel). Missions if assigned, include:

- Reconnaissance.
- Destruction of nuclear delivery means.
- Sabotage.
- Deception.
- Creation of panic in the enemy rear.[49]

Real-world Soviet airborne experience in the post war period has been almost non-existent. Airborne troops were employed twice (by airlanding) in strategic missions during the invasions of Czechoslovakia and Afghanistan to seize the seats of government. (Note: Although these were airland operations, the use of paratroops may be attributed to their elite status and to the fact that they are considered to be among the most politically reliable of troops in the USSR.) There was, however, an additional instance in the Afgan invasion which was to some degree an operational mission. After the seizure of Kabul, an airborne unit of unspecified size moved north to seize and hold the Saglan tunnel in the Hindu Kush mountains, the one point of the road network where the advancing Soviet ground forces might have been blocked.[50] Since then the Soviet airborne forces have borne a large share of the fighting but the exact nature of operations remains sketchy and apparently bears little relation to the operational concept we are examining.

SECTION V: TODAY'S THREAT

While the previous section outlined current Soviet doctrinal concepts for utilization of airborne units, the experiences of World War II illustrate the fact that Soviet doctrine has, at times, exceeded actual technological and operational capabilities. In assessing the nature and scope of Soviet

operational airborne activity that might be expected in a NATO/Warsaw Pact conflict, it is therefore necessary to first review the size and capability of the force under evaluation.

Currently the Soviet force structure contains seven airborne divisions (while some sources refer to eight divisions, it appears that the eighth unit may be a training organization). Of these, three are located in the Baltic and Belorussian military districts and may be considered to be targeted primarily against NATO (and AFCENT in particular), while another two are located in the Moscow and Leningrad districts and would also be readily available for employment in a NATO conflict.[51] It is when one examines the actual divisional structure that the magnitude of differences between Western and Soviet airborne forces becomes apparent. While Western airborne units are generally light forces possessing limited mobility once inserted, the Soviet airborne division is a true mechanized force of 6500 personnel with approximately 330 BMD Airborne Amphibious Infantry Combat Vehicles (AAICV), 31 ASU-85 Self-Propelled Assault Guns, 23 BRDM's, and over 1200 trucks and special purpose vehicles.[52] See Annex E. As with any airborne force, however, utility is contingent upon the availability of adequate airlift assets for insertion into the enemy's operational depths (as illustrated in Section III, it was the lack of lift assets which caused diversion of airborne units to ground force roles in World War II and which affected the outcome of the operational employments that were attempted).

Airlift support for Soviet airborne operations is provided by the VTA (Military Transport Aviation) which has been a separate element of the airforce since 1955 and is directly subordinate to the General Staff. Currently Soviet airborne operations are supported by three types of aircraft:

1) The AN-12 Cub which can drop either sixty paratroopers or two BMD's. It can transport most equipment organic to the airborne division and has an unimproved runway capability; 90-115 AN-12's can transport one regiment.
2) The IL-76 Candid which can deliver either 120 paratroopers or three BMD's. It can transport all of the division's organic equipment and has an unimproved runway capability; 50-65 IL76's can transport one regiment.
3) The AN-22 Cock which is intended primarily for airlanding large items. It can carry 170 troops, four BMD's, or eighty metric tons.[53]

As with all other parts of the Soviet military establishment, the VTA has been undergoing an extensive modernization program. Currently the VTA fleet contains approximately 600 aircraft composed of fifty-five AN-22's, over 200 AN-12's, and more than 300 IL-76's (which is continuing to replace the AN-12 on a "one for one" basis). Airlift capability will be further increased in 1987 (estimated date) when the AN-124 Condor, a jet aircraft which will exceed the C-5B lift capacity by twenty-five tons, is expected to enter service. While intended primarily for strategic power projection and the intertheater movement of reserve war stocks, its introduction will increase the availability of AN-22's and IL-76's for operational airborne employment. Additionally Aeroflot has some 1000 medium and long range transport aircraft (including 200 AN-12's and IL-76's) which could supplement airborne missions by airlanding operations once an airhead has been secured.[54] Virtually all equipment in the airborne divisions' inventory can be air dropped using either shock absorbing platforms or retro rocket parachute systems and current generation aircraft are believed to be capable of delivery under zero visibility conditions (as with the U.S. AWADS system).[55]

Estimates of airborne assault capability based purely on numbers of aircraft are questionable since in time of war many mission requirements would be in competition for VTA assets and in any event the Soviets would hardly risk their entire lift capability in airborne insertions. As early as 1930, Major L.

A. West, in a U.S. Army Russian Institute study, estimated that the Soviets could insert an entire division through a combination of airdrop and airland and that use of Aeroflot assets could nearly double this capability, provided the airhead contained improved runways.[56] An article appearing that same year (1980) in Defense and Foreign Affairs estimated that the Soviets could lift one division with all equipment and three days of supplies to a range of 1800 kilometers, or that the combat assault elements of two divisions could be lifted. Such an estimate appears entirely feasible since as early as the Divina exercise (1970) the Soviets airdropped a division force of 8000 men and 160 vehicles in a period of twenty-two minutes.[57] Clearly the Soviet lift capability has improved dramatically since this exercise (and since the two articles cited above), primarily due to the ongoing replacement of the AN-12 by the IL-76. It is therefore not unreasonable to estimate that in an attack on NATO the Soviets might attempt the simultaneous insertion of two airborne divisions by airdrop of the assault elements (possibly only dropping two regiments per division, depending on lift allocation) and complete the insertion by airlanding operations. Obviously such insertions would be contingent on the ability of the Soviet air force to open air corridors, an issue to be raised later in this paper.

Although Section IV outlined the doctrinal operational missions of Soviet airborne forces, the list was extremely broad in scope. The remainder of this section will attempt more precisely to define the nature of the operational airborne threat that may be expected on the European battlefield. In doing so the following five questions will be addressed:

1) Will Soviet airborne employment be primarily strategic, operational, or tactical?
2) Which NATO war scenarios favor operational airborne employment?

3) At what stage in the conflict can operational commitment be expected (timing)?
4) What will be the likely targets?
5) What size force will be committed?

Concerning the categories of employment options they are primarily strategic, operational, and tactical (special missions are clearly limited in nature). It may first be concluded that on today's NATO battlefield virtually all tactical airborne missions will now be conducted by either heliborne motorized troops or by special air assault units (which are designed to transcend from the tactical into the operational spectrum). The Soviets have made quantum leaps in the evolution of their helicopter assets, and these aircraft now possess the range for all tactical insertions, with the added benefits of being able to use non-specialized troops and avoiding the dispersion problems associated with parachute insertions. Additionally Soviet heliborne experience being gained in Afghanistan will undoubtedly lend additional credibility to this tactical mode of insertion. Turning to the opposite end of the spectrum, strategic employment, it is interesting to note that the two Soviet post war airborne employments, in Czechoslovakia and Afghanistan, have been strategic operations. Such employment in a mid-to-high intensity European scenario seems far less likely, however. Colonel David Glantz in The Soviet Airborne Experience contends that because of the depth of insertion for strategic missions, they will be conducted only in the "waning stages of resistance" when disintegrating resistance will expedite link-up with ground forces.[58] While it is by no means inconceivable that the Soviets might open a war with a strategic insertion to capitalize on surprise, it is doubtful that they would commit the majority of their paratroop assets to such a risky deep mission and forego entirely the potential for more certain near term operational gains. Furthermore, in the case of relatively soft strategic targets the use of

Spetsnaz personnel offers a potentially more efficient and economical alternative. It therefore appears that in all but the last stages of a NATO/Warsaw Pact conflict the most probable mode of employment is operational. Such missions, executed beyond the range of tactical heliborne elements, are far less likely to be neutralized prior to link-up than are strategic insertions and considering the relatively shallow depth of the NATO theater, offer excellent potential for transition from operational to strategic success.

Turning to the question of possible scenarios for the initiation of a European conflict, three general scenarios are usually postulated:

a) A surprise attack using only Warsaw Pact "forces in place" which would achieve both strategic and tactical surprise.
b) An attack after limited mobilization by both sides with the Soviets still attempting to achieve tactical surprise.
c) An attack after full mobilization by both sides with no degree of surprise achieved.

It may be argued that option a), a surprise attack using only "forces in place" would allow the most ideal use of airborne forces since the rear area infrastructure and virtually non-existent peacetime operational reserves would be least prepared for operational airborne insertions. P. H. Vigor, in his book Soviet Blitzkrieg Theory, makes a fairly persuasive argument for this case. A particularly interesting aspect of his book (for this study) is his analysis of forces available for such an attack. While the Soviets/Warsaw Pact forces number approximately 160 divisions (with three Soviet and one Polish airborne division equal to two percent of the total force), Vigor adjusts this total by eliminating:

1) All forces east of 40° longitude due to initial closure time.
2) All non-category one units in the Baltic and Belorussian military districts since the upgrading process would forfeit surprise.
3) Polish units and Soviet units in Poland due to lack of a common border with NATO.

4) Soviet/Czech forces in Czechoslovakia which Vigor asserts will be needed for a holding attack in the south.

These adjustments leave, by Vigor's reckoning, only twenty divisions for a "standing start" attack. What is significant for our purposes is that the airborne force mentioned above (three Soviet, one Polish) have increased in relative value tenfold as they could now provide a twenty percent increase in available forces. This potential and Vigor's assertion that "as an attacker increases his speed the weight of the blow can be decreased," makes operational airborne employment a virtual necessity in this scenario.[59]

Turning to scenario b), attack after incomplete mobilization by both sides, one finds the most widely accepted war initiation scenario. While strategic surprise will be forfeited, ample opportunity should still exist for the conduct of operational airborne insertions. Target areas will be more restricted due to the ongoing NATO force build up and air corridors will be more difficult to open. Nevertheless operational reserves would still be relatively weak in this scenario and the higher ground force combat ratios available to the Soviets would allow more forces for link-up operations than in Vigor's scenario. Finally, it is hardly plausible that the Soviets would have devoted such massive assets to their airborne forces if they could only envision employment under conditions of complete strategic and tactical surprise.

With regard to our last scenario, war initiated after total mobilization, there is good reason to argue that the Soviets would never attack under such conditions. Full mobilization would certainly be of higher relative benefit to the West than to the Soviets. Particularly key would be the buildup of air power which would make deep airborne insertions more difficult, and the fact that significant operational reserves might be available to counter operational air drops. Nevertheless our World War II examples illustrate that the Soviets

have committed operational airborne forces in the face of both enemy air superiority and mobile enemy armored forces. Clearly if the Soviets were willing to risk an all out attack on NATO under conditions so unfavorable, they could hardly be expected to withhold any asset, including airborne forces, regardless of risk.

In summation, while the options of attack with forces in place and after partial mobilization appear the most favorable for operational airborne use, one must conclude that such employment should be expected in any of the three scenarios.

An aspect of employment closely related to the scenarios discussed above is the question of timing -- at what stage in the attack can operational airborne drops be expected? It is reasonably apparent that Vigor's scenario facilitates almost immediate employment, quite likely within the first twenty-four hours, both to derive the maximum benefit from surprise and to add weight to the initial blow. With regard to an attack after a period of partial mobilization there appears to be a larger window, perhaps up to a week. It is proposed, however, that even in this scenario operational employment will occur very early, probably in the first forty-eight hours, for the following reasons:

a) The Soviet's initial superiority in quantity of combat aircraft will make the successful opening of air corridors for transports most feasible in the first few days. The longer they delay increases the prospect that NATO qualitative edges and reinforcing aircraft from the U.S. could begin to shift the air battle in NATO's favor, at least in specific sectors.
b) U.S. strategic airlift capability will continue to increase the forces available (to include use as operational reserves) the longer the Soviets wait.
c) The sooner the Soviets commit airborne forces the better the chances of conforming the airborne operation to a preplanned scenario. The longer NATO forces have to change dispositions the more likely Soviet planners are to be forced into a reactionary mode, which was clearly one of the reasons for the utter failure of the Dnepr Operation discussed in Section III.

Finally considering our last scenario (attack after full mobilization), the question of timing becomes far less certain. It is quite possible that the strength of reserves which will exist at this stage and the fact that NATO's fully deployed forward defenses will make penetrations (and hence link-up) far less certain may force the Soviets to delay and look for operational airborne "targets of opportunity." In summation it appears that in the two most likely scenarios, extremely early employment can be expected. Perhaps this attitude is best reflected in a comment by Marshall Sokolovsky in Voennaya Strategiya:

> Of decisive significance in a future war will be its initial period....The more effectively a country uses at the outset the troops and the equipment it has accumulated before the war, the greater the results it can achieve at the very beginning of a war, and the more quickly victory is achieved.[60]

Having considered the relation of operational employment to various scenarios, the potential/doctrinal targets mentioned in Section IV will now be analyzed with regard to the European battlefield environment:

a) Nuclear Assets: While this has traditionally been seen as a high priority target, it is submitted that the likelihood of using operational airborne units against such targets now has a low probability. One argument presented is that the introduction of GLCM and Pershing II which can be employed from well outside operational depths has made attempts at neutralization futile (this is compounded by aircraft delivered weapons and the increasingly pinpoint accuracy of SLCM).[61] If the Soviets do elect to attempt such neutralization, then a far more viable course of action is to use heliborne troops for tactical or near operational depth targets; and Spetsnaz or air strikes (perhaps guided by Spetsnaz) for operational depth targets. Use of airborne forces against such a multiplicity of targets would waste, in piecemeal fashion, a powerful, air-deliverable armored force and would place severe strains on air transports, fighter caps, and the C^2 infrastructure to support a multitude of small insertions through numerous air corridors.

b) Key Facilities (HQ's, CP's, Commo Facilities): This is also deemed a low probability target for reasons similar to a) above. Out to 100 kilometers such targets can be assaulted by heliborne troops on by the

Front's Air Assault Brigade, and surgical heliborne insertion against relatively soft targets is preferable to air drop. At deeper operational ranges a combination of Spetznaz/air attack could suffice and would be more economical, leaving airborne forces for those "harder targets" requiring more powerful and massive forces.

c) Logistical Facilities: This should be considered a high probability operational airborne target. Unlike Western airborne divisions it must be remembered that the Soviet airborne division is a fully mobile, lightly armored force. By inserting a full division the Soviets could in effect create an "air inserted OMG-style raiding force" that could create havoc in the COMMZ, disrupting supply flow to the combat zone and taking advantage of captured supplies (Class I and III) in addition to limited aerial resupply. Such an effort would assist in rapidly bringing about the defensive culminating point of the forward corps.

d) Airfields: Major airfields will constitute a high probability target for two reasons. First their seizure by initial air drop allows for the quick follow on insertion of airlanded forces and equipment for a rapid airborne force build up. Using AN-22's even non-organic equipment such as medium tanks could be brought in to supplement the "airborne OMG." Used in this sense, airfields could constitute an intermediate operational objective from which the force could stage to engage reserves, seize more important terrain, or destroy COMMZ facilities. Secondly, and equally important, seizure of a major airfield (such as Rhein-Main) could be an operational end in itself to block both CONUS-to-Europe and intratheater movement of forces and to deny use of facilities to NATO combat aircraft (one of the objectives of the division drop in the Dnepr Exercise (1967) was an airfield).[62] Because of their locations, the seizure and retention of major airfields would entail MOUT type operations on at least part of the airhead perimeter and it is significant that Soviet airborne troops appear to undergo more MOUT training than motorized rifle troops.[63]

e) Ports: While listed as a doctrinal target, the probability of operational airborne use against NATO ports is probably low since the range to strike most ports is at or past extreme operational range (generally considered 100 to 300 kilometers) and the interdiction of sea reinforcement is a mission of the Soviet submarine fleet and naval aviation. Regarding the ports themselves, Spetsnaz or air strikes against key harbor facilities is probably more likely than parachute assaults and would represent a more economical option. (Note: In a SWA scenario ports could become the key operational or strategic objective to prevent marine landings.)

f) Key Terrain (Water Crossings, Road-Rail Centers, Mountain Passes): Seizure of road-rail centers and crossing sites on major water obstacles should be a high probability mission, in order to facilitate the movement of OMG's or second echelon Armies through the NATO Army Groups' operational depth. The high density of wheeled vehicles in the Soviet force makes road control essential to maintaining momentum and will clearly require MOUT operations (for which Soviet airborne units are well trained). Seizing and defending urban transportation centers is a particularly attractive option since the MOUT defender's force ratio advantage increases dramatically (as much as eight to 1

according to one study) and since recent MOUT battles such as Beirut, Hue, Suez City, and Khorramshahr have shown that MOUT conditions tend to negate attacker advantages in air power and artillery.[64] For these same reasons it is also reasonable that operational airborne units, if tasked to secure a major water crossing, may choose an urban area on which to base their defense until link-up. Of the two World War II Soviet operational employments, one (Dnepr) was aimed at a major water obstacle.

g. Blocking/Neutralizing of Reserves or Withdrawing Enemy: Again a <u>high probability</u> mission, the evaluation of this threat is probably more colored and hindered by our own perceptions of airborne employment than in any other potential role. While the light western airborne units are all too frequently envisioned as being inserted to "hold on" in an airhead against enemy reserves, the mobile, armored characteristics of the Soviets could enable them aggressively to seek out and engage operational reserves. By maneuvering offensively against NATO reserves and fighting tactically defensive battles (possibly by occupying urban areas on road nets vital to the reserve) a Soviet airborne division could seriously attrit and delay several divisions of a NATO operational reserve (arguably the NATO Army Group center of gravity) to the point where they could no longer influence the main battle. Of note is that the Dvina Exercise (1970) used an entire airborne division to block enemy reserves.[65] Finally the same concept of offensive maneuver and tactically defensive battle could be used to block withdrawing NATO forces. (Note: This mission also argues in favor of early employment of airborne forces since NATO's emphasis on forward defense will probably dictate early commitment of operational reserves which airborne forces could neutralize.)

The last issue to be considered in this section will be to determine the size force the Soviets may be expected to employ. It is the position of this assessment that the Soviets will probably make two to three large operational insertions (up to divisional size) rather than numerous battalion and regimental drops for the following reasons:

1) The difficulty of coordinating transports, fighter cover, and SEAD will probably be easier for several large operations than numerous smaller ones. In fact a regimental drop could well require as much support of some types (such as ECM) as a division drop.
2) Soviet airborne doctrine since its inception has frequently stressed the massing of airborne forces.
3) Of the four targets considered to have a high probability, both the attack of logistical areas and the neutralization of reserves favor use of a concentrated, division-size force. Seizure of key terrain at the operational level also dictates a large force since the operational threat presented to NATO forces will almost certainly result in strong counterattacks. Finally seizure of airfields

facilitates the ready insertion of a large force, perhaps as a precursor to executing one of the other three missions.

In summation, a NATO/Warsaw Pact conflict will probably see the majority of the airborne forces targeted against NATO employed on operational missions (with strategic insertions possibly made late in the war). All three scenarios (attack with forces in place, after partial mobilization, and after full mobilization) allow operational use but the first two are particularly well suited to operational employment. Furthermore, in both of these two scenarios employment will probably occur very early in the conflict. Targets selected will be those which require a fairly high degree to combat power (as opposed to relatively "soft", lightly defended targets) and the four most probable are:

1) Logistical Facilities/Support Areas.
2) Key Terrain.
3) Reserves and Withdrawing Forces.
4) Airfields - perhaps in preparation for attack on one of the other three.

No attempt has been made to prioritize these four targets; there are too many planning variables that could cause the Soviets to give first priority to any one. Lastly operational employments will consist of several massive insertions rather than numerous small ones. While these employments may incur severe losses, the experience of World War II should leave little doubt that the Soviets will make such sacrifices if the operational gains offered are sufficiently attractive.

SECTION VI: MEETING THE CHALLENGE

While the primary purpose of this paper was to assess the nature and scope of Soviet operational airborne employment in a future NATO conflict, this final section will present an overview of implications and considerations for

operational planners. It is beyond question that the primary focus of effort must be toward the close battle and deep battle areas in order to achieve decisive results. As the preface of FM 90-14, Rear Battle, states,

> ....in the operational context, the primary purpose for waging the rear battle is to retain overall freedom of action for fighting the close and deep battles.

Perhaps more so than in any other area of the battlefield framework, risk must be accepted in the rear. Such risk must, however, be carefully calculated for as FM 90-14 also points out,

> The AirLand battle cannot be won solely by fighting the rear battle; but it could well be lost in the rear.[66]

This paper has dealt with perhaps the most dangerous of all rear battle scenarios; one in which the rear area will be forced to contain and defeat a light armored force of up to division size, composed of some of the most elite troops in the Soviet army.

A point of obvious concern is the question of whether U.S. doctrine is adequate for addressing a rear battle threat of the magnitude envisioned. Without resorting to a detailed analysis beyond the scope of this paper, it appears that this question must be answered affirmatively. Both FM 100-16, Support Operations: Echelons Above Corps, and FM 90-14, Rear Battle are cognizant of the Soviet airborne threat (and are well supplemented in this area by the FM 100-2-1,2,3 Series, The Soviet Army). FM 100-16 realistically recognizes that a Level III threat as envisioned in this paper will require the commitment of tactical combat forces (either reserves, combat units from forward areas, or host nation/allied resources).[67] Furthermore both FM 100-16 and FM 90-14 adequately define the coordination measures necessary between the rear

battle participants (tactical combat forces, RAOC's, and ASG's).[68] Finally, it would appear that adequate provision has been made for the rear battle interface between the U.S. and other NATO members, through both the concepts of FM 90-14 and various STANAGS. The true problem, as is so often the case, appears to be one of paying adequate attention to our doctrinal literature. In peacetime the provision of adequate realism in training exercises is difficult. Assets (especially for aggressor play) are at a premium and rarely is an attempt to portray rear threats larger than Level II made. Additionally, only the annual REFORGER exercise is of sufficient scope to allow playing out the scenario we have envisioned (if a force could be made available to play the role). Wargames and CPX's are an alternate means of practicing rear battle efforts but all too often this aspect of the game play is the least realistic and of least concern to the participants. As was mentioned in the introduction it appears that the Soviets lack of World War II airborne successes, coupled with the still debated merits of our own airborne operations, has produced a state of relative apathy toward this threat. (Note: Inseparably linked to the problem of apathy toward rear battle doctrine is the question of whether adequate capability exists to implement such doctrine. While a detailed analysis of this question is beyond the scope of this paper, it should be clear that in any scenario imaginable, the commitment of combat troops to the rear battle will be a difficult decision and will virtually always involve risk in the close battle.)

A second key point of consideration for NATO planners is an assessment of the vulnerabilities of Soviet airborne forces. Generally Soviet literature envisions four primary threats to the success of their airborne operations. Enemy air defenses are clearly the primary threat enroute to drop zones and

during the actual drop. Once on the ground the Soviets appear to envision three other major threats.

1) Nuclear Strikes - The larger the insertion the more likely the Soviets see such a possible response.
2) Attack by armored forces.
3) Attack helicopters.[69]

The relative merits (and implications) of the nuclear option are beyond the scope of this paper but armored and attack helicopter threats merit a closer look. It is clear from an examination of the Soviet Airborne Division's equipment tables that they are far better equipped to deal with NATO armor than with attack helicopters. In addition to some 330 BMD's (mounting both a 73mm gun and ATGM), the division has an ASU-85 battalion (31 guns), an artillery battalion capable of direct fire (30, D-30 howitzers), and 421 RPG-16's. To counter aerial threats the division has only thirty-six ZU-23 antiaircraft guns (a weapon effective to only 2500 meters and with no fire direction radar) and 183 SA-7/14's.[70] An additional factor sure to be considered by the Soviets is the fact that attack helicopters can mass against their target far more rapidly than armored forces. Taking these factors into consideration and realizing that U.S. attack helicopter strength is by far the greatest in NATO, it is logical that Soviet operational planners would prefer operational insertions in the NORTHAG sector, at least in regard to the tactical counter-threat.

The last part of this study will list five final areas of consideration for planners and force developers seeking to counter operational airborne threats. In a sense they may present questions rather than answers but should nevertheless be of benefit in planning for rear battle against the threat presented in this paper.

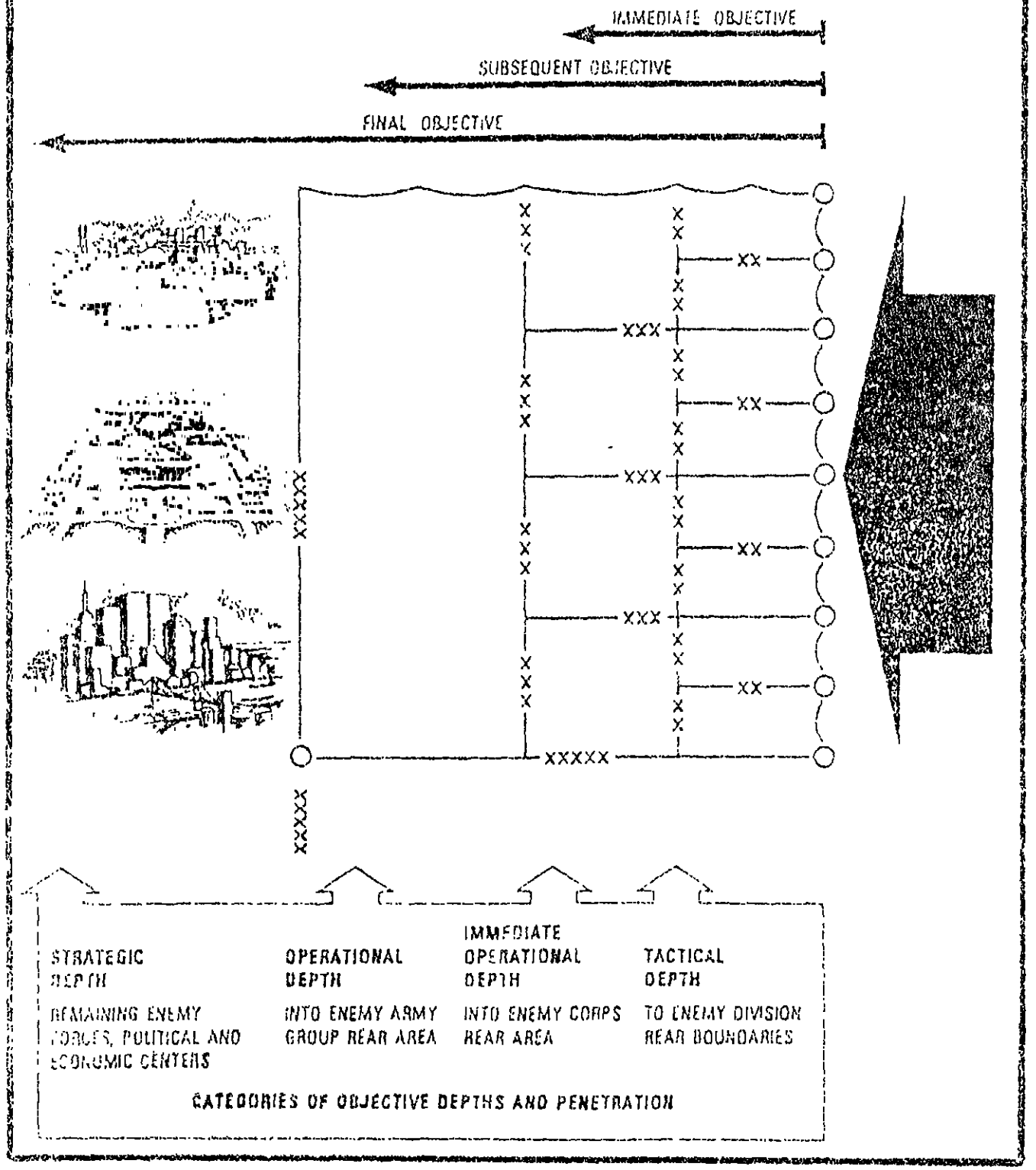
1) Intelligence: Since we have established that rear battle will probably involve the greatest acceptance of risk, it follows that intelligence collection efforts are critical for realistic calculation of the degree of risk to be taken. PIR and EEI at the highest levels must be tailored to detect Soviet intent regarding operational airborne employment. Ground movements of airborne forces in the Soviet rear, VTA (transport aviation) staging, or shifts of Aeroflot assets could all provide critical information for analysts. SOF (Spetsnaz, Recon, GRU) activities in the NATO rear must be carefully analyzed as they could represent advance preparation/recon for operational insertions.
2) Reserves/Rear Battle Forces: Unless those forces allocated to rear battle are sufficient, then reserves (those forces primarily intended to influence action in the MBA) will find themselves committed to the rear fight. In some cases, scarcity or resources will dictate assignment of both reserve and rear battle roles to the same unit. In fact, as was previously shown, these reserves could be the actual objective of the Soviets. In view of Soviet airborne force structure one must question the use of light infantry and air assault troops, so often nominated for the rear battle role, as counters to Soviet armored and fully mobile airborne units. It is arguable that brigade sized units, configured similarly to the 9th ID (motorized) and acting in concert with attack helicopters and CAS would be far more ideal. Resources such as CAS, attack helicopters, MLRS, FASCAM, and GATOR could all be used against operational rear threats but must be weighed against the needs of the close battle (MBA) -- which will in turn determine where the systems/delivery platforms are positioned.
3) Tactics: More emphasis must be placed or immediate counterattack by local forces to at least delay assembly. The value of such action is well supported by German actions against Soviet airborne forces in world War II.
4) Technology: On-going progress in the development of PGM's may be of great potential in negating operational airborne threats in the NATO rear. Furthermore, improved shoulder fired anti-tank weapons and wider distribution of GLID's could greatly enhance the capability of rear area troops.
5) Deep Battle: Consideration should be given to strikes against airborne and air transport staging areas, at the expense of striking motorized /tank unit staging areas or Soviet combat aircraft bases. The relative merit of such tradeoffs in relation to the overall battle effort must be carefully assessed.

In conclusion, the operational potential of the Soviet airborne force presents a formidable challenge to U.S./NATO planners. They are an elite, air deliverable mechanized force, capable of decisively influencing front and army level operations, and are a perfect compliment to the Soviet principles of operational art (especially the principles of surprise, mobility and high rate

of combat operation, combat activeness, and simultaneous action through the enemy's depths).[71] There should be no question that operational insertions will occur. In the words of General A. Olinik, writing a few years ago in Red Star, the vertical assault is "an important maneuver without which modern offensive operations are not possible."[72] The challenge will be to counter these forces -- not if they are used but when.

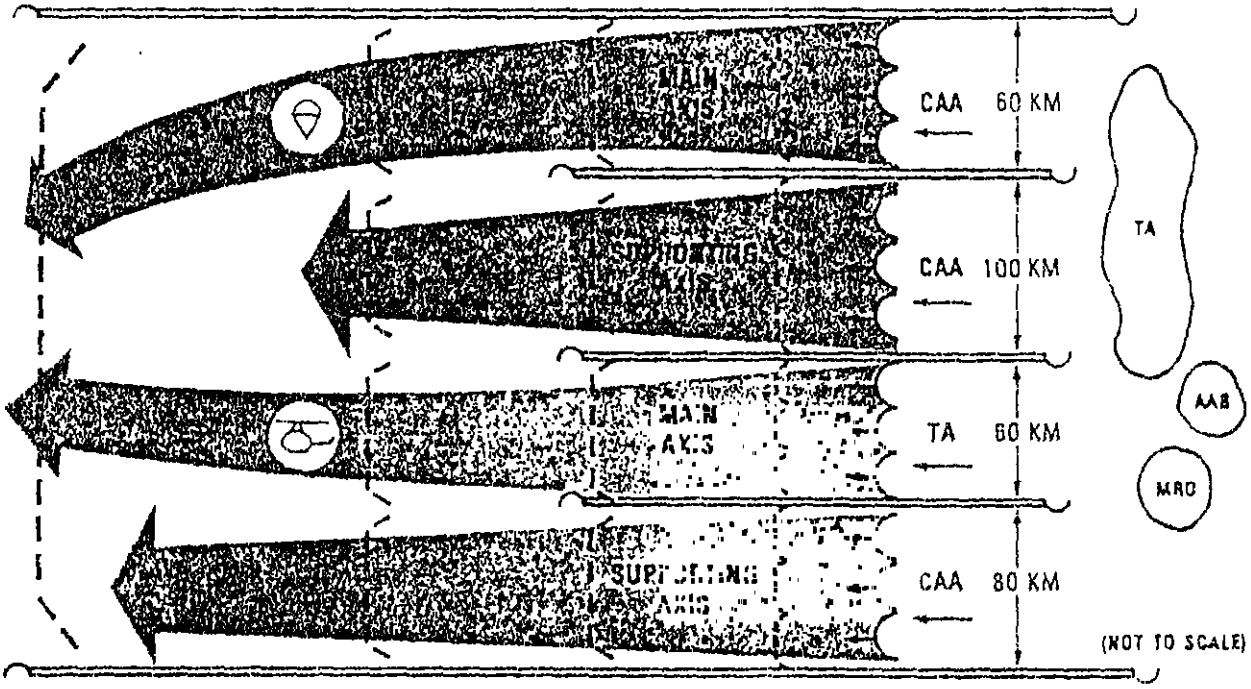
ANNEX A

Front Offensive Objectives and Depths



FROM: FM 100-2-1, The Soviet Army: Operations and Tactics, Washington, DC: US Government Printing Office, 1984. pp4-3, 4-4.

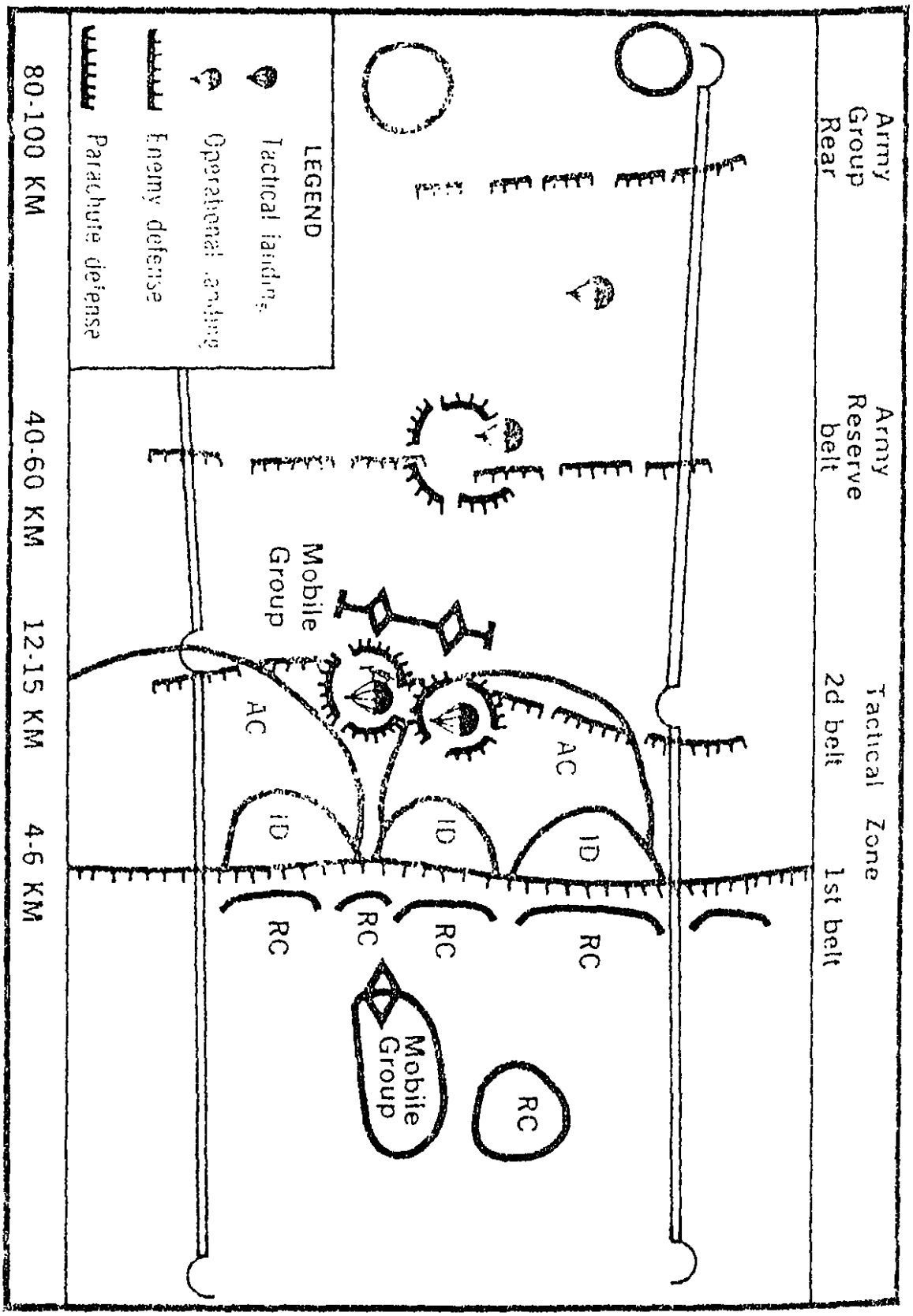
Soviet *Front* Offensive Operation (Variant)



FRONT FINAL OBJECTIVES	ARMY SUBSEQUENT OBJECTIVES	ARMY IMMEDIATE OBJECTIVES	DIVISION OBJECTIVES
600-800 KM	250-350 KM	100-150 KM	25-30 KM
12-15 DAYS	6-7 DAYS	3-4 DAYS	FIRST DAY

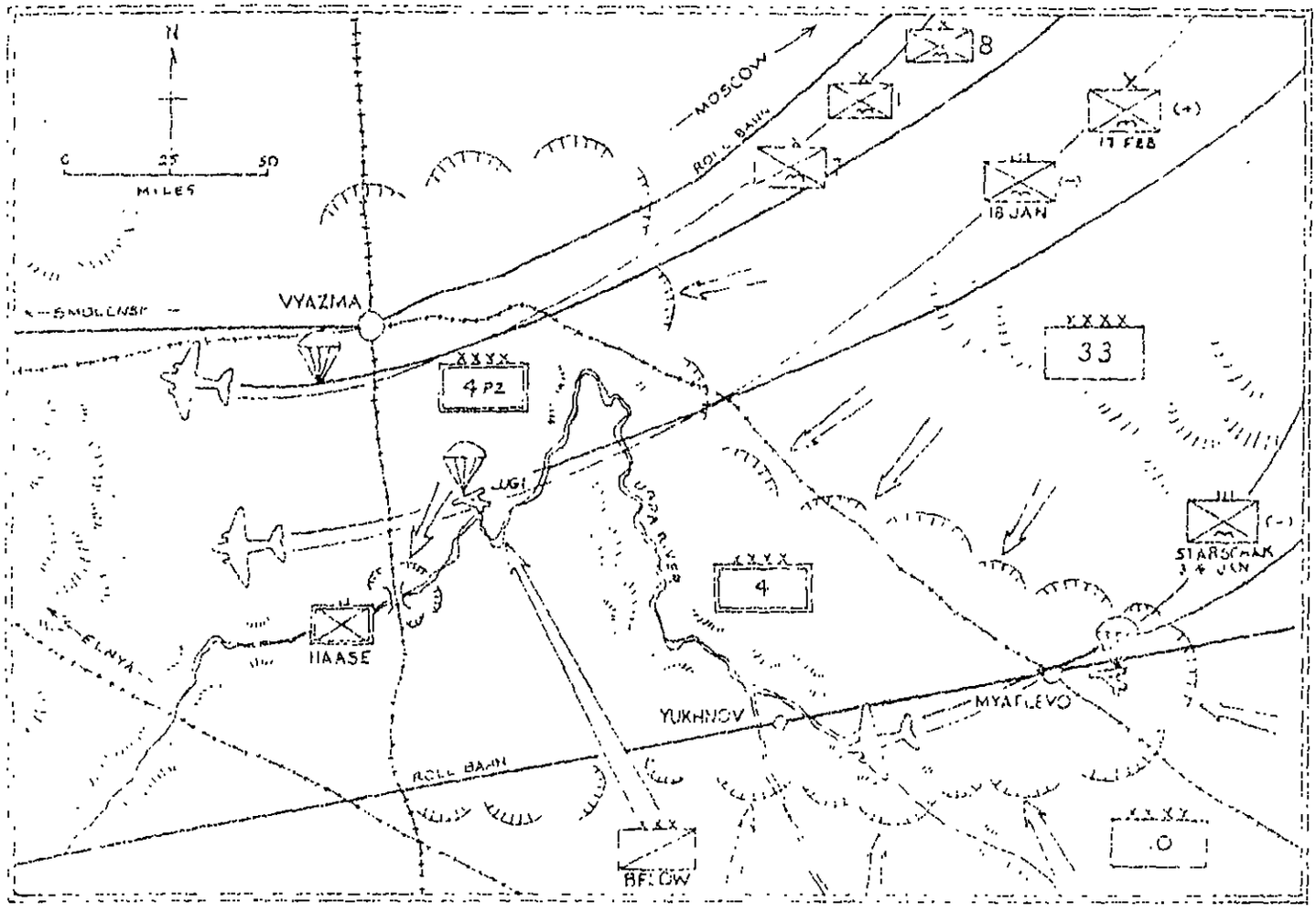
LEGEND:
CAA - Combined Arms Army
TA - Tank Army
AAB Air Assault Brigade
MRD Motorized Rifle Division

ANNEX B, Soviet Airborne Doctrine As Presented In Field Regulation Of 1936



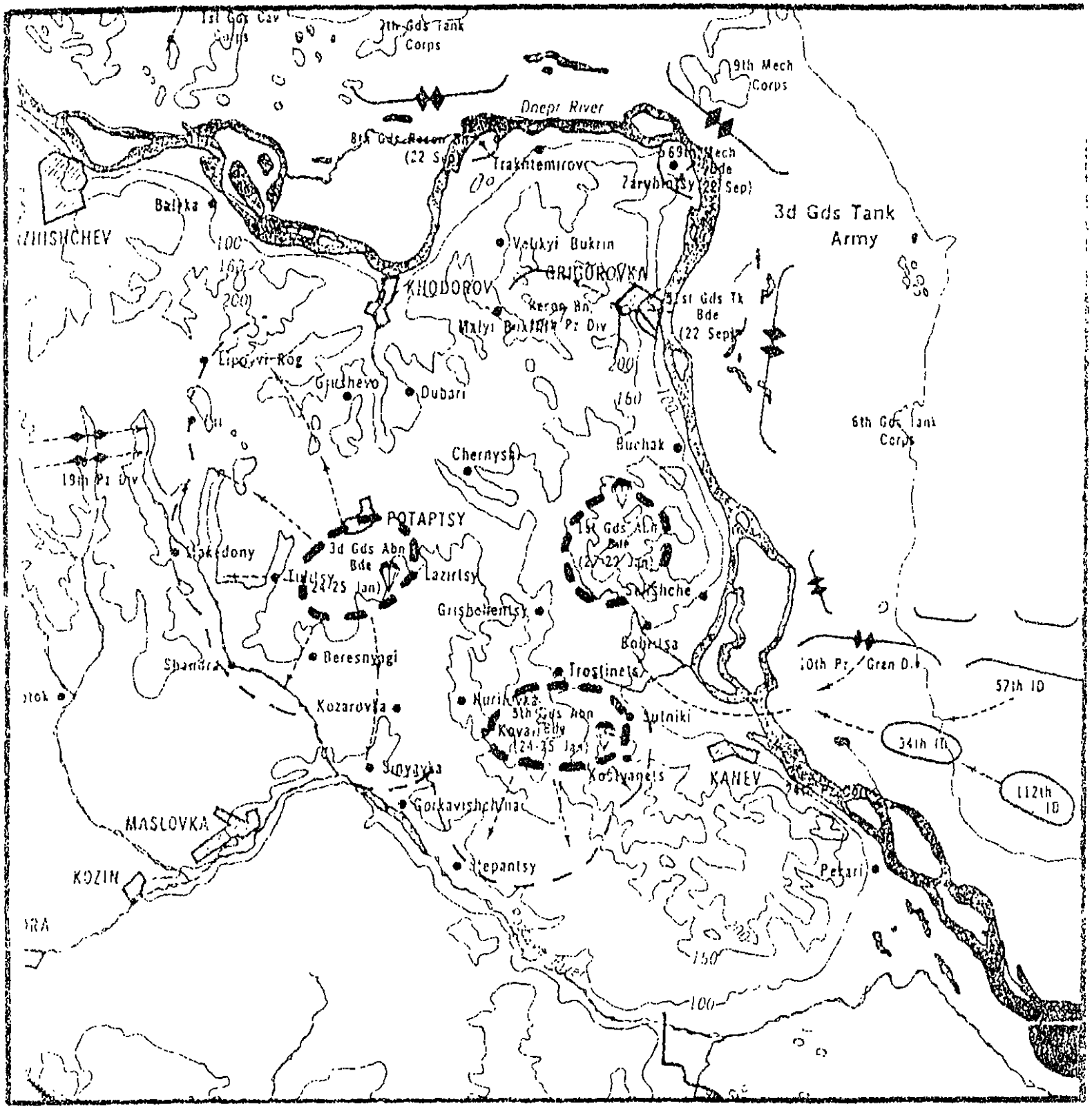
FROM: The Soviet Airborne Experience by LTC David M. Glantz, Ft. Leavenworth,KS: Combat Studies Institute,1984.p 15.

ANNEX C , Vyzama Operation



FROM: Air Assault by John R. Galvin, New York: Hawthorne Books, 1969, p.66.

ANNEX D , Dnepr Operation

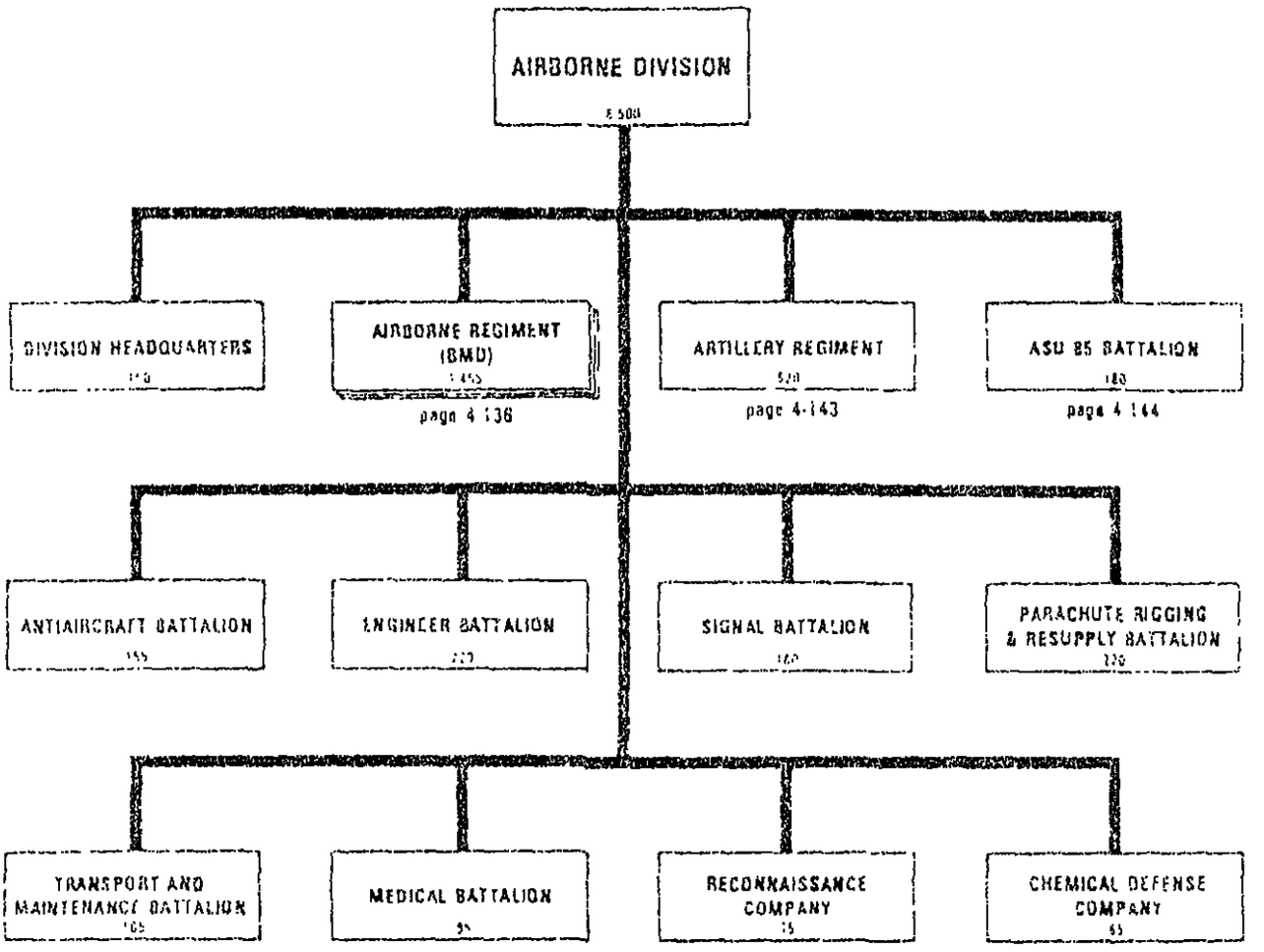


FROM: The Soviet Airborne Experience by LTC David M. Glantz, Ft. Leavenworth, KS: Combat Studies Institute, 1984. p.231.

ANNEX E

Airborne Division

The Soviet airborne division now is almost fully equipped with motorized equipment. This significantly increases its combat power and mobility, while retaining an airdrop capability for most of its equipment. Under the reorganization, the airborne division now is assessed to have the BMD amphibious airborne infantry combat vehicle (AAICV) in all three of its airborne (infantry) regiments. Essential combat support is provided by an artillery regiment, an assault gun (ASU-85) battalion, and an antiaircraft battalion. Also, the airborne division has other combat support and combat service support units that provide limited backup for combat operations.



FROM: FM 100-2-3, The Soviet Army : Troops, Organization, and Equipment. Washington, DC: US Government Printing Office, 1984. pp4-139 thru 4-142.

Personnel and Equipment Recapitulation

AIRBORNE DIVISION

	DIVISION HEADQUARTERS AND HEADQUARTERS COMPANY	3 x AIRBORNE BATTALION (BMD)	ARTILLERY REGIMENT	ASU 85 BATTALION	ANTIAIRCRAFT BATTALION	ENGINEER BATTALION	SIGNAL BATTALION	PARACHUTE RIGGING & RESUPPLY BATTALION	TRANSPORT AND MAINTENANCE BATTALION	MEDICAL BATTALION	RECONNAISSANCE COMPANY	CHEMICAL DEFENSE COMPANY	TOTAL
PERSONNEL	160	4 365	620	180	155	220	180	220	165	95	75	65	6 500
WEAPONS													
122-mm Howitzer, D-30			30										30
122 mm Rocket Launcher, M1975			6										6
120-mm Mortar, M1943 or New		18											18
85 mm SP Assault Gun, ASU-85				31									31
SAM SA-7/GRAIL or SA-14 Gripstock	6	108	21	12	12	6	6	6			6		183
23 mm AA Gun, ZU-23		18			18								36
ATGM Launcher Vehicle (BRDM-2), AT-3/5		27											27
ATGL RPG-16D	6	333	40	2		12	11		8		9		421
30 mm Auto Grenade Launcher AGS 17		54											54
5.45 mm LMG, RPK 74	4	249	36				4				8		301
AAICV ACV/ASC													
ACV BMD M1979/3	3	30											33
AAICV BMD M1979/1		27											27
AAICV BMD		*270*											*270*
ACV BRDM/BRDM 2	2	12									1		15
ASC BRDM/BRDM-2											8		8
GENERAL PURPOSE TRUCKS													
Truck, UAZ 69/469	16	57	30	2	1	10	7	10	8	4		6	149
Truck, GAZ 66 A/B	6	288	75		25	20	2	60				15	491
Truck, ZIL 130/131		192		6			3	50	50				301
Truck, Ural-375D		6							6				12
Truck, KrAZ 255B		18						12					30
Truck, Ambulance UAZ 450A/452	1	15	3	1						10			30

	DIVISION HEADQUARTERS AND HEADQUARTERS COMPANY	2 x AIRBORNE BATTALION (BMD)	ARTILLERY REGIMENT	ASU-85 BATTALION	ANTIAIRCRAFT BATTALION	ENGINEER BATTALION	SIGNAL BATTALION	PARACHUTE RIGGING & RESUPPLY BATTALION	TRANSPORT AND MAINTENANCE BATTALION	MEDICAL BATTALION	RECONNAISSANCE COMPANY	CHEMICAL DEFENSE COMPANY	TOTAL
VAN TRUCKS													
Truck, Van, ZIL (AT-3/5 Simulator)		3											3
Truck, Van, GAZ	8									1			9
Truck, Van, GAZ (Signal)		9	6				9						24
Truck, Van, ZIL (Maintenance)		36	5	1					18				60
Truck, Van, Hospital										5			5
Truck, Van, (SIGINT Equip.)											3		3
POL TRUCKS													
Truck, POL, ZIL		36	4	1				15					56
CHEMICAL RECON VEHICLES													
Truck, Chem. Recon, GAZ-69rkh		12	1										13
DECONTAMINATION VEHICLES													
Truck, ARS 12/14												1	1
Truck, Decon, GDA-66													
SPECIAL PURPOSE TRUCKS													
Truck, Crane, K-61						2							2
Truck, Dump, MMZ						4							4
Sedan, GAZ 24	2												2
SPECIAL PURPOSE/ENGINEER EQUIPMENT													
Armored Recovery Vehicle						3							3
[illegible] Machine BTM						2							2
Dozer, BAT/BAT M						2							2
Grader						2							2

	DIVISION HEADQUARTERS AND HEADQUARTERS COMPANY	3 x AIRBORNE BATTALION (BMD)	ARTILLERY REGIMENT	ASU-85 BATTALION	ANTIAIRCRAFT BATTALION	ENGINEER BATTALION	SIGNAL BATTALION	PARACHUTE RIGGING & RE SUPPLY BATTALION	TRANSPORT AND MAINTENANCE BATTALION	MEDICAL BATTALION	RECONNAISSANCE COMPANY	CHEMICAL DEFENSE COMPANY	TOTAL
TRAILERS													
Trailer Cargo 1-Axle	4	51	23	3					3				84
Trailer Generator, 1-Axle	2						3		2				7
Trailer, Water	1	27	4	1		1	2		1				37
Trailer, Field Kitchen	2	57	10	3		3	1		2				78
RADARS													
Counter-Battery/Counter Mortar			2										2
Battlefield Surveillance Man portable										2			2
SIGINT EQUIPMENT													
Radio DF, HF/VHF/UHF										3			3
Intercept Receiver VHF/UHF							6			3			9
RADIOS													
HF Vehicle Mount, Medium Power, R-130	10	30		1			4			1			46
HF, Vehicle Mount, High-Power							1						1
HF/VHF, Vehicle Mount, Medium Power		12	5				1		1				19
HF/VHF Vehicle-Mount, High Power		3	1				1						5
VHF Portable, Very Low Power, R-126		108	5										113
VHF, Manpack, Low-Power, R-107	3	132	44	2	10	8	1	2	2	2		2	209
VHF, Vehicle-Mount, Medium-Power, R-123		366		31						9			406
Ground-to-Air Radio Set	2	27					4						33
Warning Receiver, R-311	1	15	3	1	1	1	1		1				24
Radio Relay, VHF/UHF, R-401/405/409			1				1						2

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