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Soviet Ground Forces Trends

A CIA-DIA-Army Assessment

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Soviet Ground Forces Trends

A CIA-DIA-Army Assessment

This assessment was prepared by
of the Office of Soviet Analysis. It was developed jointly by the Central Intelligence Agency, the Defense Intelligence Agency, and the Department of the Army. Comments and queries are welcome and may be directed to
SOVA, ; to the Assistant Deputy Director for Estimates, Defense Intelligence Agency, ; or to the Commander, US Army Threat and Analysis Center, Department of the Army.

Soviet Ground Forces Trends

Key Judgments

Information available as of 30 September 1984 was used in this report.

This paper summarizes the findings to date of the Land Armaments and Manpower Model (Project LAMM), a continuing Central Intelligence Agency, Defense Intelligence Agency, and Department of the Army assessment of Soviet and Warsaw Pact Ground Forces. The project has completed a detailed reassessment of those forces from 1960 onward and has projected their future development in terms of size, disposition, equipment, and readiness status through 2000. All available sources of information have been used

The Soviet Ground Forces consist of some 213 divisions and two new, unified army corps, as well as a large number of support units. There are wide variations in the quality and combat readiness of this force, due largely to peacetime limitations on available manpower and procurement of military equipment. In general, however, the force can be characterized as consisting of two distinct groups:

- First, 80 divisions and two corps, over one-third of the total, are in a condition the Soviets call Ready. These are the best trained and equipped and are sufficiently manned to conduct immediate defensive operations; they could be mobilized quickly to conduct offensive operations.

- Second, some 133 low-strength divisions and unmanned division equipment sets are considered Not Ready by the Soviets. They are equipped primarily with older or obsolescent weapon systems and conduct little training. They are, however, backed up by a well-developed system of mobilization that could fill them out quickly, but they would need weeks of additional training to achieve the Ready divisions' minimum standard of effectiveness for offensive combat

The Ground Forces have been engaged in a vigorous modernization program since the mid-to-late 1960s. The priority for acquisition of new equipment has gone predominantly to the Ready divisions, especially those opposite NATO's Center Region. Even in the Ready force, however, despite an impressive array of modern weapons, a large number of weapons are of 1960s or earlier vintage. On the other hand, Soviet weapons fielded since the mid-to-late 1960s are of good quality and, in general, compare favorably with their counterparts found in Western armies

We have no direct evidence of Soviet plans for the future size, composition, organization, or readiness of the Ground Forces. Our projections are driven by our understanding of how the Soviet force development process works, historical analysis of earlier Soviet responses to stimuli for change, estimates of the factors that bound the reasonable possibilities for future change, perception of force requirements, and by our estimate of Soviet capabilities to meet these requirements

We believe that, for the remainder of the 20th century, the Ground Forces will substantially increase their combat potential—their modernization programs will continue and the force will grow moderately in size. We expect the Ground Forces to increase to over 230 divisions and nine unified army corps, with most of the growth in Not-Ready divisions. (There is some disagreement over the size of the future force. See page 17 for a different view.

Economic and demographic constraints probably will somewhat slow the rate of force improvement, however, and this will further widen the gap in quality and combat readiness between the Ready and Not-Ready forces. Because of a severe decline in the availability of draft-age Soviet males which will last through the 1990s, we expect little or no growth in manpower in the Ground Forces. Indeed, the Soviets will need to make adjustments in their military manpower policies such as increasing the proportion of non-Slavs in combat units or extending the draft term to keep military strength up to current levels. Even then, they may need to further cut peacetime manning levels of some units

We expect weapons inventories to increase by nearly 10,000 additional tanks, 13,500 artillery pieces, and over 23,000 infantry fighting vehicles. Most of the new weapons will go to the Ready forces, which pass on much of their obsolescent equipment to the Not-Ready forces

These projections are sensitive to unexpected changes in the economic and technological constraints that we have assumed will limit the growth and capabilities of the forces, especially in the 1990s. If, for example, the Soviet economy were to grow at a faster rate, equipment modernization might be accelerated. Also, unanticipated technological breakthroughs could have a major impact on the organization and capabilities of the forces by the late 1990s

The vigorous modernization of Soviet Ready forces is not being matched by modernization of East European ground forces, which are falling steadily behind. This growing gap in military potential may cause the Soviets to revise their war-fighting strategy against NATO. Soviet forces might take over some of the important offensive missions now assigned to East Europeans. Some less substantial East European forces might be relegated to operations against weaker NATO forces on its flanks. Pact main offensive thrusts may be directed more against weaker NATO national sectors, while attempting to bypass and encircle stronger US and West German forces

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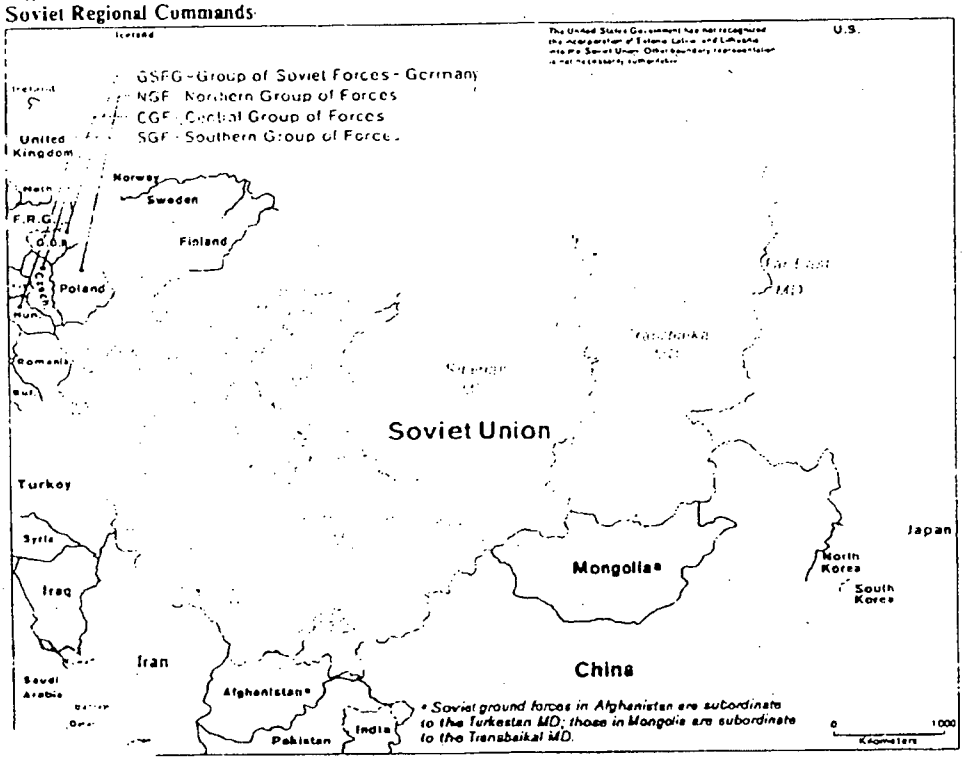
Figure 1
Soviet Regional Commands



Soviet Ground Forces Trends

Sources and Methods

This assessment is based primarily on the Land Armaments and Manpower Model (LAMM), which was developed jointly by the Central Intelligence Agency, Defense Intelligence Agency, and Department of the Army intelligence components, with the assistance of the National Photographic Interpretation Center.

The LAMM data base represents a reassessment of all-source intelligence on Soviet and non-Soviet Warsaw Pact ground forces for the period 1960-83. This reassessment was made possible by interagency cooperation and the large volume of detailed information on specific ground force units that has accumulated over the years.

Building on the historical data base, we developed a new projections methodology incorporating LAMM's tools of analysis as an *aid* to projections.

Force Profile

The Ground Forces are the largest component of the Soviet armed forces and the second-largest land force in the world, exceeded only by the ground forces of the People's Republic of China. Since the mid-1960s, the Soviet Ground Forces have been expanded in size and have acquired a massive array of weapons. Despite impressive improvements, however, many Ground Forces units lack important support equipment and possess combat equipment older than the crews manning it. In essence, there are two Ground Forces: a Ready force of 80 divisions and two new, unified army corps, which are well trained and equipped; and a Not-Ready force of 133 divisions, most of which are poorly equipped and all of which are manned at low strength and would require weeks of postmobilization training to be fully effective for offensive combat operations.[1] Ready divisions include some manned as low as 55 percent of wartime authorized strength, and Not-Ready divisions range downward from 40 percent to include some that have no assigned personnel.

Force Size

The force consists of 213 divisions (18 of which are unmanned, mobilization base divisions) and large numbers of nondivisional support units as well as some 40 nondivisional maneuver regiments and brigades.[2] There are, in addition, two former divisions—at Minsk in the Belorussian Military District and at Kyakhta in the Transbaikal MD—which have converted to an expanded, new corps structure. These forces are disposed in regional commands called military districts and groups of forces (figure 1). Additionally, there are 38 army or corps commands that control most of the divisions. A few divisions are subordinate directly to the MDs or groups of forces headquarters.

Manning

Nearly 2 million men are assigned to the Soviet Ground Forces. In wartime, manpower would increase to slightly over 4 million men to round out the 213 divisions and two new corps, their support elements, and Ground Forces command structures.[3] Soviet **Ground Forces manning to meet mobilization require**ments comes from three sources—careerists (officers, warrant officers, and noncommissioned officers), two-year conscripts, and a large pool of reservists (figure 2).

[1] The terms "Ready" and "Not Ready" are adopted from the Russian forms (Razvernutaya and Nerazvernutayar ich

[2] These figures do not include large numbers of various support troops that are subordinate to the Soviet Ministry of Defense (such as Construction and Railroad Troops) or other paramilitary organizations (such as the KGB Border Guards or Ministry of Internal Security troops).

[3] See Interagency Intelligence Memorandum NIIM 82-10012/D (Secret), March 1983, *The Readiness of Ground Forces*.

Figure 2
Soviet Ground Forces Wartime Manning

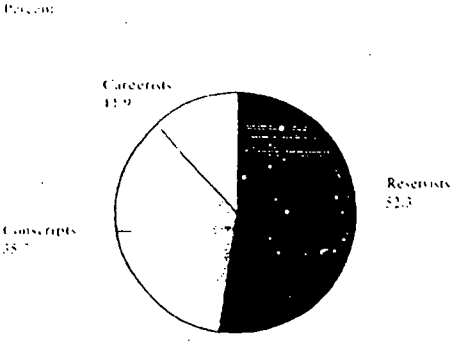
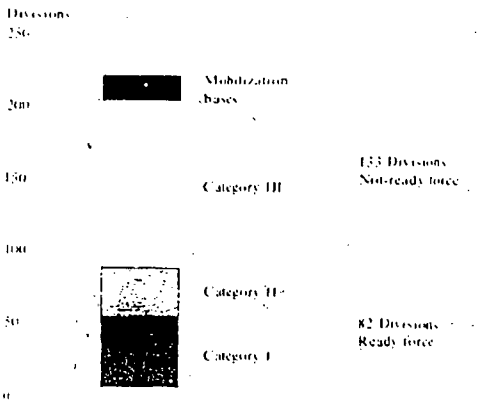


Figure 3
Readiness Profile of Soviet Ground Forces



Soviet Ground Forces rely heavily on the skills, leadership, and experience of the relatively small numbers of careerists, who would make up nearly 12 percent of the wartime force. Careerists also carry a significant burden during peacetime; they account for only 25 percent of overall strength but must fill most technically demanding jobs and leadership positions. The constant turnover of most of the force complicates training and makes the maintenance of combat readiness a difficult and demanding task; however, the Soviets do provide preinduction training to about one-third of their conscripts. Moreover, the high turnover rate results in a large manpower mobilization pool.

We estimate that mobilization requirements for major combat elements could be satisfied by reservists discharged within the last two and a half to three years. The low peacetime manning of some support units, however, results in much smaller annual discharges of personnel with appropriate skills. Meeting mobilization requirements for these support units would require calling up personnel who had been discharged for five years or more.

Readiness

Soviet peacetime manning practices and force dispositions indicate two major readiness goals: first, to be able to generate sufficient forces for an emergency defense should any potential enemy launch a quick attack, and, second, to be able to mobilize the large forces considered necessary for a more prolonged or larger scale war. The Soviets needed large numbers of divisions during World War II and believe large numbers will be needed in any future war against NATO or China. For the Ground Forces opposite NATO, this has led to maintaining divisions in Eastern Europe manned at between 85 and 90 percent of wartime strength. At the same time, the majority of forces in the USSR are kept at severely reduced manning levels but with machinery in place to fill them with reservists quickly (figure 3). Units manned

at the higher strength levels—especially those stationed in Eastern Europe—receive frequent training and conduct a full range of field exercises each year. These units, although they would need some manpower augmentation, could be made ready for combat operations in a few days

Divisions in the USSR—with the exception of the 48 Ready divisions that are widely spread along the periphery—are manned from as low as 5 percent to as high as 40 percent of wartime authorization and would be manned primarily by reservists in wartime. These low-strength divisions—roughly 60 percent of the force—conduct little training, and personnel from these units rarely participate in field training above the battalion level. Periodically, the Soviets conduct mobilization exercises that test the procedures for calling up the reserve personnel needed to round out such units. These reservists receive little field training, however, and the Not-Ready units they are to round out would require extensive postmobilization training to make them combat effective for offensive operations in a battle of mid-to-high intensity

Weapons Inventories

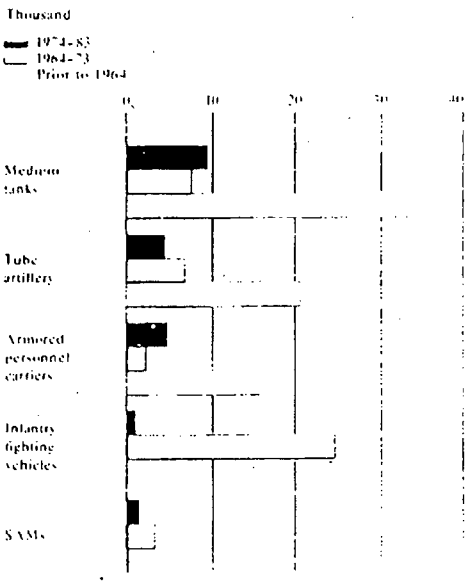
The Soviets have made substantial improvements in the quality of equipment introduced into the Ground Forces since the mid-1970s. Nonetheless, much of the equipment now in the force was developed during the 1940s and 1950s, and most of the equipment now in the hands of troops began to be introduced before or during the 1960s (figures 4 and 5). Weapons fielded since the mid-to-late 1960s, however, are of good quality—such as the T-64A tank, BMP infantry fighting vehicle, and D-30 122-mm howitzer—and compare favorably with their counterparts in Western armies. Many of the older weapon systems have been improved over the years, and modification and retrofit programs continue. Soviet use of improved munitions also has extended the useful life of some of the older systems

Regional Variations

Soviet Ground Forces units vary substantially from one region to another in force size, readiness, force composition, organizational structures, and weapons inventories:

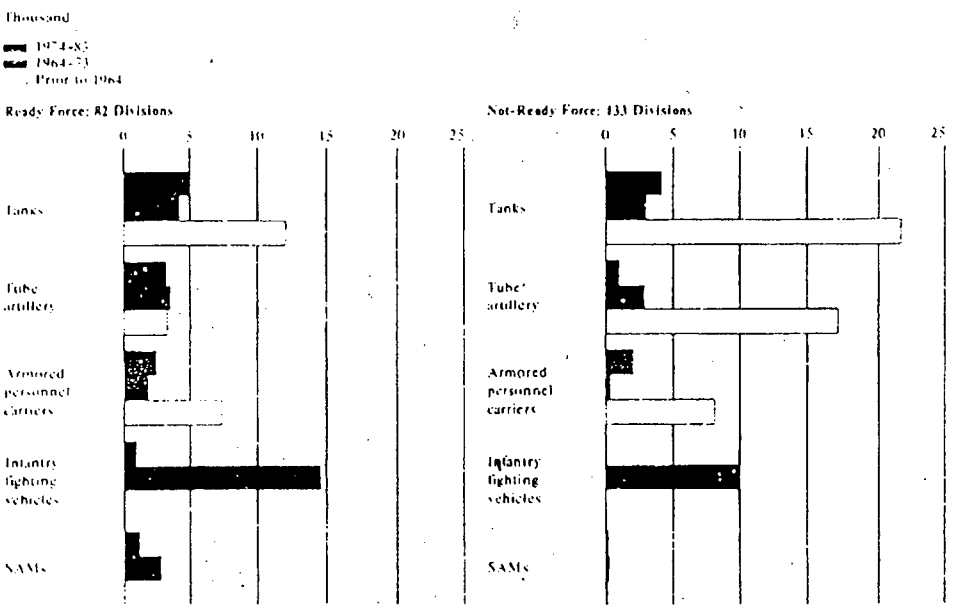
- Forces opposite NATO's Center Region—the area that the Soviets call the Western Theater of Military Operations—are the largest regional grouping and have the most Ready divisions: 19 in East

Figure 4
Soviet Ground Forces Equipment Inventory



[illegible] inventory, including weapons found at mobilization base units. We have excluded land-held SAMs because of great uncertainty in quantifying these systems.

Figure 5
Comparison of Weapons Inventories of Ready Versus Not-Ready Forces*



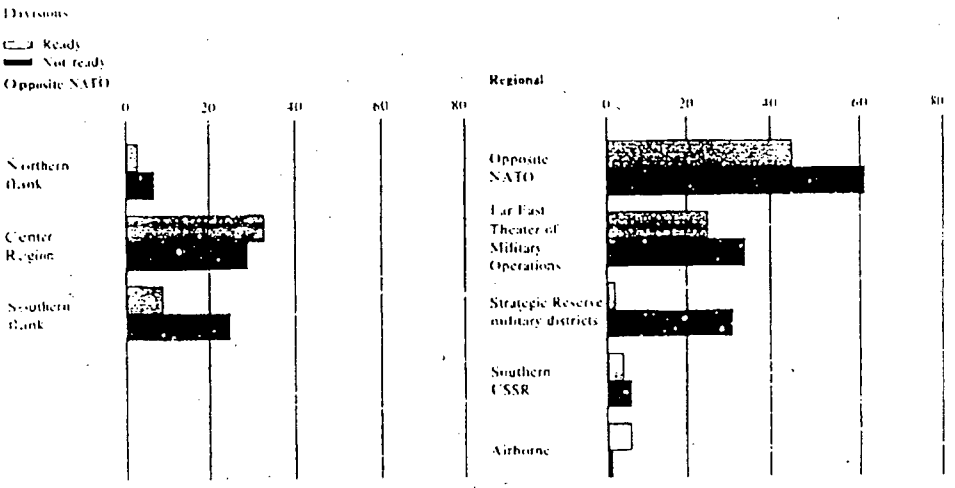
*Despite the disparity in the number of divisions, the ready force has more APCs and IFVs than the not-ready force, a difference that reflects the shortage of this equipment in low-strength units.

Germany, two in Poland, and five in Czechoslovakia, as well as seven in the western USSR (figures 6 and 7). Some Not-Ready divisions in this regional grouping—such as the cadre tank division in Belorussia—have equipment inventories that compare favorably with those of Ready divisions.

- The next-largest grouping and the one most comparable to forces opposite NATO in size, readiness, and equipment is the force that is opposite the People's Republic of China.
- Forces opposite NATO's flanks in the Northwestern and Southwestern Theaters of Military Operations generally are smaller and less well manned and equipped.

Some of the regional differences—especially those that are organizational responses to variations in terrain—result from tailoring. For example, tank regiments in the Leningrad Military District, because

Figure 6
Soviet Ground Forces Readiness



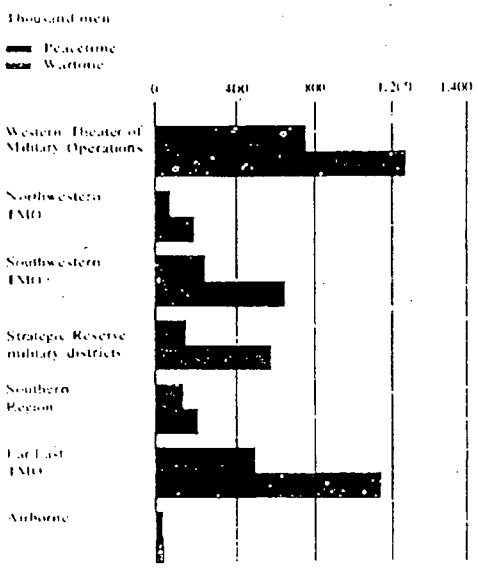
of the nature of the terrain there, have one light and two medium tank battalions rather than the three medium tank battalions usual in other tank regiments. Motorized rifle regiments in the Transcaucasus MD have subordinate tank companies rather than the tank battalions found elsewhere because of the mountainous terrain and limited trafficability of the area.

The mix of motorized rifle and tank divisions (figure 8) also shows Soviet consideration of potential enemies and terrain restrictions. Forces opposite NATO's Center Region—the location of the USSR's potentially most threatening enemies and an area favorable for large-scale armored operations—are a balanced mix of tank and motorized rifle divisions, but elsewhere motorized rifle divisions predominate.

Perhaps the most dramatic reflection of regional differences is in weapons inventories. Soviet forces opposite NATO's Center Region lead all other theaters in every major category of weapon systems, both in quality and quantity. Even so, these forces retain substantial amounts of older equipment (figure 9).

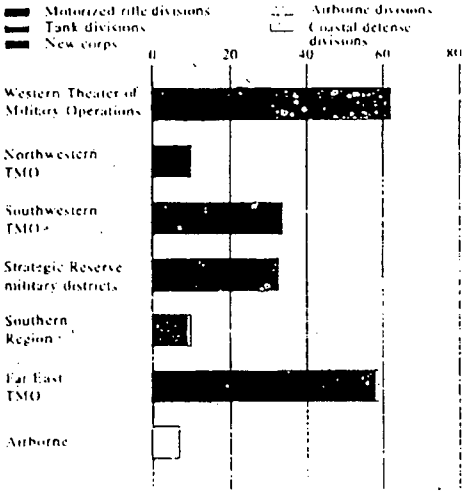
Retention of older equipment for many years is not a problem of only the Soviet Ground Forces; indeed, all major armies retain varying amounts of older equipment in their inventories.

Figure 7
Manning Assessment for Soviet Ground Forces



* The North Caucasus and Transcaucasus Military Districts may be part of the Southwestern TMO opposite NATO forces from these MDs along with forces from the Southern Region also may be included in the Southwestern TMO opposite the Persian Gulf region.

Figure 8
Soviet Regional Forces Composition*



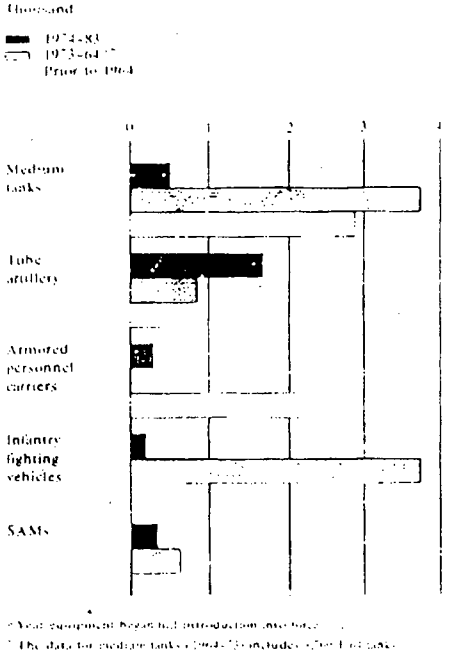
* The North Caucasus and Transcaucasus Military Districts may be part of the Southwestern TMO opposite NATO forces from these MDs along with forces from the Southern Region also may be included in the Southwestern TMO opposite the Persian Gulf region.

Our Approach to Projections

Background

Because of the secrecy that is an integral part of the Soviet system, we have no direct evidence of Soviet plans for the future size, composition, organization, or readiness of the Ground Forces. We do have limited insights into the process of force development, weapons development programs, and production of land armaments, but even in these areas we have little direct evidence upon which to base our long-range projections. Our projections, therefore, are driven by our understanding of how the Soviet force development process works, our historical analysis of earlier Soviet responses to stimuli for change, our estimates of the factors that bound the reasonable possibilities for future change, our perception of force requirements, and by our estimate of Soviet capabilities to meet these requirements

Figure 9
Equipment Inventory, Group of Soviet Forces, Germany



We examined the Soviet mechanisms for managing the development of Soviet Ground Forces with particular attention to how the process has functioned in the past. We have tried to take the perspective of a Soviet force planner responding to all those factors that stimulate and bound the potential for change. None of these factors can be quantified to the extent that they provide a mathematical formula for prediction. Some, however, can be given greater weight than others in formulating an approach to projections and defining the main assumptions. This section of the paper summarizes our approach

Force Development Process

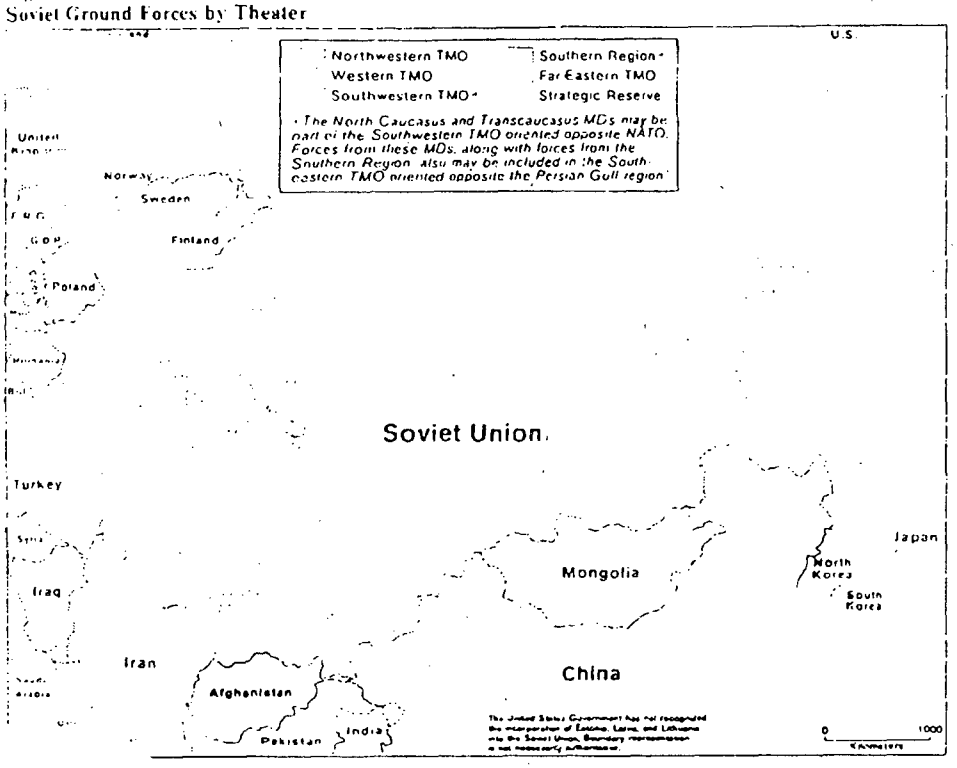
Force Development Mechanism. Soviet force development is centralized and controlled from the highest levels, with the Politburo and Defense Council making key decisions and the General Staff integrating planning and supervising the execution of force development activities. It takes place within the context of the overall five-year defense planning process

The General Staff provides inputs into the overall Five-Year Defense Plan. It initiates the planning cycle, provides defense planning guidance, coordinates the inputs from the various services and major field commands, and approves the force development plans for incorporation into the overall five-year defense plan.[The General Staff also works with state planning elements, weapons designers, production facilities, service elements, and others to determine and prioritize military requirements for utilization of state resources. Upon completion of the planning process, the General Staff presents the plan in detail to the Defense Council for approval. The Defense Council, somewhat analogous to the US National Security Council, takes an active part in the force development process and makes key decisions relating to force development. Once the plan is approved by the Defense Council, the General Staff supervises its implementation

Regional Planning Perspective. The Soviets group large formations of ground and air forces that have a common strategic mission into what they call theaters of military operations—*teatr voyennykh deystvij* (figure 10). They conduct force planning and force evaluations within the context of these regions and tailor their forces to meet the regional security objectives. The key element of their analysis is a kind of net assessment that they call the correlation of forces. Historically, the Soviets have responded to perceived threats by increasing the size of regional forces in threatened areas. Transfer of forces from one region

[ ]

Figure 10
Soviet Ground Forces by Theater



to another also has resulted in overall force growth due to the Soviet practice of reconstitution of the transferred units back at their points of origin. This practice—preceded by the Sino-Soviet border buildup that began in the mid-1960s, the deployment of Soviet forces to Czechoslovakia in 1968, and the deployment of an army to Afghanistan in the 1980s—has been responsible, along with the activation of mobilization bases, for almost all increases in the overall number of divisions since the mid-1960s.

Relationship of Process and Projections. Analysis of the Ground Forces' force development process provides an important framework for understanding the past and the potential of current force activities for development. Certain aspects of force development have been key during different projections periods:

- *Near-term projections.* Force developments up to five years in the future, or within the current five-year plan, tend to be dictated by the inertia imposed by the large size of the force, its past developmental patterns, and limits on current production of weapons. Events now occurring in the force provide the *evidential* basis for this projections period. In the near term, there is little prospect for radical or

dramatic improvements. The Soviet Ground Forces are simply too large for the force to be able to respond quickly to a radical shift in force development.

- *Midterm projections.* Weapons now under development, anticipated changes in rates of production, and our assessment of the likely conclusion of current developmental activities—in force structure, equipment modernization programs, organizational goals, and operational and tactical concepts—provide the *analytical framework* for our midterm projections—five to 10 years in the future.

- *Long-term projections.* Our assumptions about the Soviet force planners' response to their perceptions of economic, demographic, technological, and other influences on the process of force development provide the *conceptual framework* for long-term projections—10 to 20 years or more in the future. There is greater opportunity for radical change in the long term because there is more time for weapons program improvements, technological developments, leadership decisions that may make an impact, and other influences to occur. Furthermore, even the accumulation of small changes implemented widely over an extended period of time can have large effects on force capabilities.

Historical Framework

We believe that the historical pattern of development in the Soviet Ground Forces provides useful insights concerning current and likely future developments. Apparently Soviet force planners share this belief. Authoritative Soviet military writings urge them to learn from their own military history, and they expend considerable effort in applying lessons from the past to current problems.

We have used the results of our study of the history of Ground Forces development as an analytical tool in projecting future change. The force is always changing, but because of its vast size it is never able to completely implement one change in direction or one modernization program before the next one emerges. History has shown that dramatic changes occur only in extreme situations and at great cost. Since World War II, there have been two periods of radical change in Soviet Ground Forces development—the drastic reduction enforced by Khrushchev in the 1950s and the buildup opposite the People's Republic of China in the 1960s and 1970s—and both of these required years to implement.

Changes requiring widespread development of additional force structure or new equipment take the longest to implement, usually a period of many years. Only a force reduction—in terms of size or manning—or a slowdown in the rate of equipment modernization can be implemented quickly, and even these changes can take several years to have a noticeable impact on the force.

Analysis of past trends in Soviet weapons acquisition rates, regional weapons deployment patterns, rates of organizational change, and changes in force structure in response to regional problems provides insight on Soviet priorities for resource allocation. We view the relationship between force objectives and force development over time and the Soviets' reaction to past events as clues to their likely reaction to similar events in the future. Also, analysis of the writings of participants in the force development process provides an indication of their concerns. Finally, our methodology includes an annual update to the data base—one that incorporates correction of the historical data base as appropriate.

Current Developments and Their Implications for the Future

The slow rate of change to the force as a whole, particularly the Not-Ready force, facilitates the basing of short-term projections on current developments—those affecting force structure, organization, weapons, and operational and tactical concepts which are the evidential basis for our short-term projections. Our estimate of the likely outcome of these developments provides the base for our midterm projections. Our projections methodology includes an annual review of current developments after the update of the current year of the LAMM data base. Study of this update provides yet another analytical aid to our projections.

Force Structure. Since 1975, Soviet forces have increased from 181 to 213 divisions and two unified army corps; events now in progress indicate further growth. The number of divisions is being expanded by the activation, at low manning levels, of a large number of mobilization base divisions that heretofore were unmanned and still are poorly equipped. Activity at the 18 mobilization-base divisions (which are widely spread throughout the USSR) indicates that the Soviets plan to activate most, if not all, of them. Such activations will not only increase the size of the Ground Forces but also make marginal improvements in the readiness of the affected component and, over time, will improve their combat capabilities as these units receive better equipment

The force also has dramatically expanded its air assault capabilities to include providing air assault battalions for armies. Expansion of helicopter units also is occurring, particularly at the division level

We do not expect further large increases in regional force structure, such as occurred in the Far East in the late 1960s and early 1970s. Indeed, it appears that the rate of growth in the Far East has slowed down. Despite turmoil in the Persian Gulf region since the fall of the Shah and the invasion of Afghanistan, there has not been an increase in force structure in the southern USSR, other than that directly associated with operations in Afghanistan and the activation of two mobilization bases in the Caucasus region. If there were to be a major expansion in regional structure, however, this area would be a good candidate

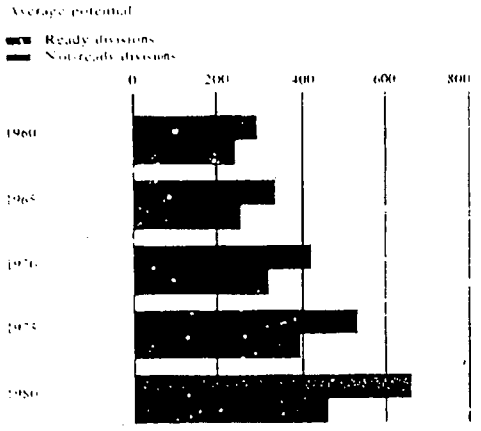
Organization. Since 1980, the Soviets have been reorganizing most of their divisions and many of their nondivisional forces as well, especially nondivisional artillery units. Within the division, the emphasis has been on obtaining a better balance between tanks, infantry, and artillery in the maneuver regiments. The earlier organization—which favored tank-heavy units designed for the nuclear battlefield—is now considered too vulnerable to modern, precision antiarmor weapons. Nondivisional artillery units are being expanded from a six- to an eight-tube battery structure and are receiving towed and self-propelled weapons that have a nuclear capability

More recently, the Soviets have been testing a new, large maneuver formation, which we call a unified army corps. This new corps, which is similar in size to the US and West German divisions, would have a wartime authorized strength of up to 25,000 men. This is about twice the size of a standard Soviet motorized rifle division. It appears to have four to five maneuver brigades, each made up of four composite battalions. The composite battalions combine five mechanized infantry and tank companies together with an organic air defense battery—an unprecedented design for the Soviets, who heretofore have organized their battalions around a single weapon system. These new organizations, although capable of various combat missions, appear to be intended chiefly to be used as operational maneuver groups for deep exploitation missions behind enemy lines. Two of these corps—formed from divisions at Minsk and Kyakhta—are being tested. At least seven more are projected by the end of the 1980s. This number would provide corps for most of the prospective Soviet wartime fronts

Organizational changes occur most rapidly in the Ready force and are tested initially in a few divisions inside the USSR. [redacted]. We believe that the discipline imposed by developing the LAMM historical data base and our current focus on monitoring of the key units involved in the testing and early adoption of organizational changes can substantially shorten this timelag

Each unit moves toward reorganization and modernization at its own pace—some Ready units are always ahead, while the majority of Not-Ready forces trail far behind the leading edge. Soviet forces opposite NATO's Center Region are the first to adopt changes, but even these forces require years to complete them [redacted]

Figure 11
Combat Potential of Soviet Divisions, 1960–80*



* Soviet and qualitative measures based mainly on weapons effectiveness scales to assess the combat potential of force aggregates.

[redacted] the gap in quality of equipment, manning, and combat readiness between the Ready and the Not-Ready force has been growing (figure 11)

Weapons. The Ground Forces are fielding an impressive variety of new combat equipment—including the T-80 and T-64B missile-firing tanks; the BMP-2 infantry combat vehicle; Hind attack helicopter; several new mortar systems for use by small, tactical units; new self-propelled artillery capable of firing nuclear rounds for divisional and nondivisional units; a new, improved tactical surface-to-surface missile (the SS-21); and the new SA-11 and SA-13 surface-to-air missile (SAM) systems. So far, however, these new weapons are entering the force slowly, and in numbers far short of what would be needed to fully equip the entire force. By Western standards, however, the numbers are impressive. We estimate, for example, that by the end of 1984 the Soviets will have fielded over 5,000 "new" tanks (T-80, T-64B, and improved T-72 variants). (S)

[redacted]

Older weapons replaced by newer weapons are not scrapped but trickle down to lower priority units having even older weapons; thus the total force inventory of weapon systems continues to increase and these lower priority units receive some modernization. The Soviets have used equipment fielded before or during the 1950s to create the mobilization bases. Ground Forces growth in force structure (that is, new units) and in expanded tables of organization and equipment (TO&Es) for existing units is also outpacing procurement of new equipment so the forces must make do with older, handed down models to implement the TO&E changes

Operational and Tactical Concepts. Soviet military planning—perhaps the most important factor in defining the structure of Ground Forces—calls for the application of massive, highly mobile, and heavily armed formations of theater forces to defeat an enemy's land forces and win the ground campaign quickly. This strategy envisions a fluid battlefield with Soviet forces primarily on the offensive and maintaining high rates of advance

There have been changes over time, however, in strategy:

- In the 1960s, the Soviets envisioned using nuclear weapons to blast holes in the enemy's defense so that Warsaw Pact tank forces could rapidly penetrate deep into enemy territory.
- During the 1970s, perceiving a greater chance of conventional conflict if war occurred, the Soviets fielded a wide range of modern conventional warfare equipment, and they began to rely more heavily on combined-arms combat to penetrate the enemy's defense. Their belief in the likelihood of conventional war required them to field more balanced formations with higher volumes of conventional firepower—particularly, self-propelled artillery to suppress antitank defenses.
- Now the Soviets seem to believe that US and NATO weapons currently under development, especially systems designed to strike deep in the rear of Pact forces, may threaten their war-fighting strategy, so they are experimenting with new concepts for overcoming these potential threats.

Soviet war planning has been changed to provide for the establishment of several wartime Theater of Military Operations headquarters, each of which will exercise centralized planning and control of joint operations for a number of fronts.[1] This should make for more flexibility and responsiveness in decision-making and allocation of forces and materials than was possible under the prior system, where each front reported directly to the Supreme High Command through the General Staff.

In response to these threats, but also in a continuing effort to more nearly realize their operational concepts, the Ground Forces are being structured and equipped to provide them increased capabilities in mobility, survivability—including improved antiarmor defenses—and firepower. The ratio of infantry to tanks has been increased, and artillery and air defense systems have been moved further down in echelon to place them farther forward on the battlefield. The division is becoming more heavily equipped with tracked and armored vehicles. Combat units are becoming larger and thus more capable of remaining combat effective after sustaining the higher losses expected from increasingly lethal Western weapons.

New types of weapons and combat equipment in their turn inevitably cause changes in tactics, operational art, strategy, and the organization of troops. These changes do not all come at once, but only as new weapons are further improved, are widely disseminated to troop units, and are turned into one of the basic tools for conducting war.

Marshal of the Soviet Union
A. A. Grechko
The Armed Forces of the Soviet State
Moscow, 1975

Second-echelon and exploitation forces, such as the new, unified army corps, are achieving improved capabilities for semi-independent and independent operations. This effort is intended to improve Soviet capabilities to exploit penetrations and outflank an enemy's main defense position.

Influencing Factors

Although the force development factors we have discussed are good indicators of likely near-term force changes, we must consider other—equally important but less specifically predictive—influencing factors in projecting longer term developments. We believe that the state of the Soviet economy and its impact on overall defense spending, the potential for technological breakthroughs in weapons development, likely future manpower constraints, and the Soviets' perceptions of threat are the influencing factors that will have the most significant impact on the long-term development of the Soviet Ground Forces. Our forecasts of these factors, therefore, have had a strong impact on our total force projection.

[1] A front is roughly similar to a NATO army group but includes its own tactical air support.

Defense Spending. Our most recent estimate of Soviet defense spending shows that defense activities grew at an annual average rate of 4 to 5 percent during the period 1965-75 but at less than 2 percent after 1976.[9] We believe that Soviet defense spending will continue to grow in real terms, but at a rate consistent with reduced levels of GNP growth; we expect GNP to grow at about 2 percent annually at least through the year 2000, and we have assumed that the Ground Forces will continue to receive their traditional share of defense spending. We expect to see this overall trend reflected in land arms procurement. Of course, if the Soviet economy were to grow at a faster rate than expected, the Ground Forces might share in a somewhat more generous allocation of military resources—especially in the 1990s.

The Soviets' strategic weapons programs over the years have closed the gap with the United States and, brought about a rough parity, within which the Soviets are judged to have superiority in some key areas. Soviet public statements suggest a concern that the United States might pursue an arms competition that could, over time, strain the Soviet economy and disrupt the regime's ability to manage competing military and civilian requirements. If the Soviets were to engage in new, high-cost strategic programs, the Ground Forces might receive even fewer resources than at present, resulting in a slowed rate of force development

We believe the main outline of Soviet Ground Forces development programs for the next three to five years is pretty well determined already and that these programs will result in force development at a somewhat slower rate than in the recent past. If our scenario for slowed economic growth holds, there will be reduced rates of weapons production and slower rates of reorganization from the late 1980s onward but not a downturn in overall ground force capabilities

[9] Note that differing methodologies have been used by members of the Intelligence Community to estimate Soviet defense expenditure trends.

[redacted]

The USSR has at its disposal substantial material resources; nevertheless, not a single question of military buildup is resolved without consideration of economic factors since the volume of the resources at our state's disposal is not unlimited.

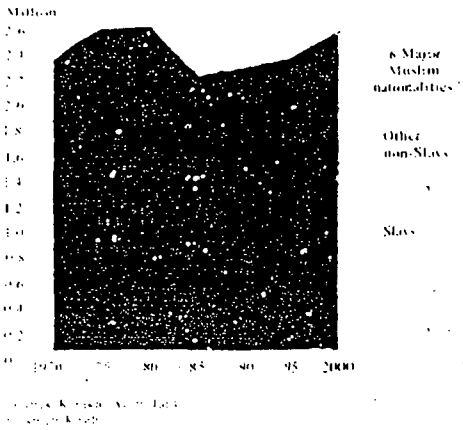
Col. Gen. V. N. Dutov
Chief, Central Finance Directorate
Rear Services, Ministry of Defense
Military Thought, *1976*

We expect the impact of this anticipated economic difficulty to be reflected primarily in weapons programs:

- Research and development times should lengthen, and fewer but more capable and expensive weapons should be fielded.
- Weapons acquisition in general should slow down, although we do foresee increased acquisition rates for a few high-priority weapons systems, such as self-propelled artillery.
- There should be increased use of product improvement techniques, such as retrofitting T-55 and T-62 tanks, to lengthen the service life of older equipment.
- Life cycles of fielded equipment should be extended.
- Rate of growth in the size of the force should slow.

Technological Breakthrough. We do not expect our projections to be invalidated by Soviet application of advanced weapons technologies before 2000. A new series of weapon systems is now entering the force. These weapons—which are compatible in technical and performance characteristics with new weapons now entering Western armies—provide the Soviets improved firepower, mobility, and survivability

Figure 12
USSR: Ethnic Makeup of 18-Year-Old Males, 1970-2000



Our analysis indicates that any weapons planned for full-scale deployment by the year 2000 are now, or soon will be, in an early stage of research and development. The conservative nature of the Soviet force development process virtually precludes any radical change in land arms characteristics without a long period of development, discussion, and troop testing before weapons deployment.

Manpower. Demographic data show that the Soviet military face a period of manpower constraints extending through the 1990s (figure 12). In particular, conscript demand--assuming present military personnel practices continue--will exceed the availability of draft-age males through the mid-1990s. The problem is further complicated for the Soviets by a shift in the ethnic mix: the proportion of non-Slavic 18-year-olds will rise steadily from 25 percent in 1970 to nearly 40 percent by 1990. Non-Slavic conscripts have traditionally been viewed as less suitable for more skilled combat and technical jobs because of educational and language deficiencies.

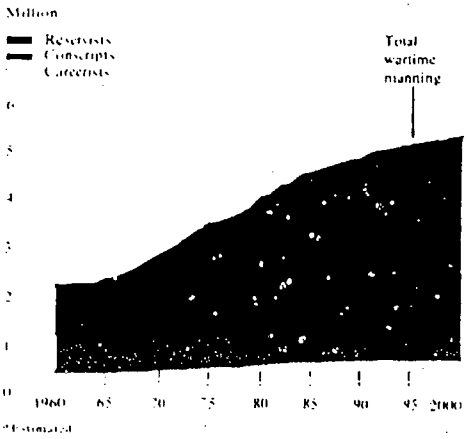
Current force levels could be maintained by increasing the basic draft term, but this would entail increasing the proportion of non-Slavs in key units. An increase from two years to two and one-half would meet the draft-rate requirements through 1990. Such a step, however, would slow the growth of the civilian labor force.

Military manpower deficiencies probably have been aggravated by the continuing expansion of the Ground Forces structure. Analysis of [redacted] indicates that even the Ready forces directly confronting NATO are suffering a slight decline in readiness because of manpower limitations. Expanded organizational structures are being introduced in the Ready divisions in Central Europe without any corresponding peacetime manning increases. Although some of the recently fielded Soviet land arms require smaller crews than the older systems, the Soviets are keeping the older systems in the force, increasing unit TO&Es, and increasing the size of the total force structure—thereby putting even greater strain on limited manpower resources.

The Soviets have also reduced the peacetime manning levels of Not-Ready divisions in the USSR. They might make even further reductions in the Not-Ready force. Such a reduction would result in a reduced level of combat effectiveness and require more remedial training to meet precommitment standards. At the same time, however, it would permit the Ready divisions to retain more manpower. These units conduct more effective training programs than the Not-Ready units; thus, the quality of the Ready force would be sustained and the quality of the reservist pool would be enhanced. The future Ground Forces will depend even more heavily on the mobilization of even larger numbers of reservists (see figure 13).

Threat Perceptions. The factor that has the most potential for countering the adverse effects of resource limitations is Soviet threat perception. Our analysis of Soviet writings [redacted] suggests that the Soviets see an increasing threat, particularly from the United

Figure 13
Distribution of Soviet Ground Forces Wartime Manpower, 1960-2000*



*Estimated

States and NATO. Just how the Soviets will react to US and NATO weapons modernization efforts and new operational concepts is uncertain. Some within the USSR may argue that their programs, already completed or now under way, would offset projected NATO force improvements. Others almost certainly will argue that NATO's modernization programs pose an increased threat that outweighs requirements for cutbacks in defense spending.

Regional Perspective. The Soviets are concerned about the political instability in the Persian Gulf region and Southwest Asia, but other theaters evidently have higher priority for scarce resources at present. There has been little improvement in the southern USSR region (the North Caucasus, Transcaucasus, and Turkestan Military Districts) and only modest improvements to Soviet forces in Afghanistan. Given the Soviets' strategic interests in the region, we believe they would like to improve these forces, but substantial improvements would divert resources

Matters must be arranged in such a way that the consequences of the country's unfavorable demographic situation are overcome, compensated for, and do not affect the Soviet armed forces' combat might and combat readiness.

Admiral Sorokin
First Deputy Chief,
Main Political Directorate
Questions of Philosophy, *1987*

away from the forces opposite NATO's Center Region or opposite China. Barring further serious destabilization in the region or a substantial increase in US military presence there, we think this unlikely.

We expect that there will be no meaningful reduction in Soviet forces in the Far East during the 20th century and that the Soviets will continue to maintain a limited offensive capability toward China. Sino-Soviet rivalry, Soviet concerns over US-Chinese and US-Japanese military cooperation, and the increasing military capabilities of both China and Japan probably will continue to be driving factors in Soviet force development for this region. Our projections of Soviet Ground Forces for the Sino-Soviet border region, therefore, assume that there will be some additional growth, but at a slowed pace, in numbers of divisions and that modernization will continue, although limited by Soviet priorities elsewhere.

Future Forces (1984-2000)

Force Development Strategy

On the basis of the foregoing analysis, we have developed a presumed Soviet force development plan or strategy. We believe, however, that Soviet force planners will not be able to fully meet their force goals because of resource limitations. Thus, our detailed projections provide our perspective of the Soviets'

In the next five years (1983–1987) alone, the Pentagon's spending will total more than $1.6 trillion. . . . The CPSU and the Soviet Government take account realistically of events taking place in the world, analyze in depth the present international military-political situations, and adopt the necessary measures to strengthen the USSR's defense potential and the combat might of the Soviet armed forces.

Admiral Sorokin
First Deputy Chief,
Main Political Directorate
Questions of Philosophy, *1982*

reconciliations of goals and constraints as they plan future development of their Ground Forces. Unexpected problems in the force development process or other influencing factors could limit Soviet achievements even further. Conversely, unexpected developments, such as a major technological breakthrough, could enable the Soviets to achieve even greater military capabilities.

We have projected Soviet Ground Forces units in detail down to the division and nondivisional regiment or brigade level– including subunit organizational standards; major weapons systems by number, type, and model; and peacetime manning strengths and readiness categories. As new weapons are introduced, the replaced older systems are reallocated to lower priority units according to the trickle-down pattern previously observed. Although time consuming, this detailed modeling injects realism into the projections by forcing us to confront problems similar to those routinely faced by Soviet force planners.

Force Structure. We believe the Soviets' force structure goals are to:

- Maintain a large force structure that can expand rapidly in an emergency.
- Maintain a favorable correlation of forces, in both forces and weapons, toward potential enemies, particularly NATO.
- Maintain a peacetime readiness posture that enables them to quickly generate sufficient forces for an emergency defense should any potential enemy launch a land attack and to mobilize the large forces considered necessary for general war with NATO or China.
- Further develop their command and support infrastructures in the Far East as part of their overall strategy for creating a limited offensive capability toward China.
- Increase offensive capabilities opposite Southwest Asia.
- Reduce the impact of the manpower shortage in the mid-to-late 1980s by shifting men from support to combat functions and, if necessary, by extending the term of conscript service.
- Continue to develop the nondivisional support structure for armies and fronts.

[redacted] Given the Soviets' consistent tendency since the mid-1960s to expand the Ground Forces, and, given their still vibrant recollection that they needed more than 500 divisions to defeat Germany in World War II, we judge that they will continue to see a requirement to generate huge Ground Force reserves for a possible future war in which they would expect to face an even more powerful coalition of enemies. Thus, we project that the Soviet Ground Forces will continue to grow through the 1990s by reconstituting the mobilization-base system as surplus equipment becomes available. The equipment modernization programs we have projected will, if they are realized, produce enough surplus to support an expansion. We project a total of some 234 line divisions and nine unified army corps by the year 2000. We expect most, if not all, of this growth to take place in Not-Ready force

The Defense Intelligence Agency does not share the view that the Soviets plan further substantial increases in the Ground Forces. That Agency believes that the total of divisions and unified army corps will not grow above 218 and that by 1990 the force will have peaked at 209 divisions and nine unified army corps.

We also expect increases in weapons inventories as a result of increases in the number of units, expansion in the size of units, and the retention of old weapons in the Not-Ready force as the Ready force receives new weapons. These include:

	Present	Year 2000
Tanks	50,100	60,600
Artillery tubes	31,500	45,000
Infantry combat vehicles	25,400	48,500
Tactical air defense SAMS	4,500	12,700

Organization. The Soviets' perception of the role of armor on the battlefield will be a major factor in organizational development of the Ground Forces through the 20th century. We believe armored forces will continue to be the centerpiece of the Soviets' offensive. This is clear from their military writings and is the dominant feature of their long-term force development. Responding to NATO weapons improvements—particularly antiarmor weapons—they will increasingly rely on combined-arms operations to protect their heavy investment in tank forces.

We believe the Soviets already are at work to develop the organization and operational concepts they deem necessary to maximize their growing combat potential and preserve the role of the tank through the 20th century. We postulate that their goals are to:

- Complete the implementation of the current reorganization, as men and equipment become available, with no further major changes in divisional structure during the 1980s. Priority for men and equipment will continue to be given forces opposite both NATO's Center Region and China and, in general, to Ready divisions.
- Complete field testing of the new, unified army corps structure during the mid-1980s and begin to convert additional selected divisions, yielding as many as nine new corps by 1990, with further conversions possible in the 1990s.
- Continue to increase the ratio of armored infantry and artillery to tanks, especially in the tank divisions and the new corps, and increase the quality of fire support at all echelons, down to company level in infantry units.
- Further develop forces and concepts for army aviation and for air assault.
- Continue to increase the combat power of divisional and nondivisional combat support units.
- Intensify experimentation with organizational concepts to maximize combat potential of weapons entering the force in the 1980s and prepare for the introduction in the 1990s of selected weapons with new technologies.

Weapons. We expect that, to attain the required weapons development and acquisition for the Ground Forces, the Soviets will:

- Support doctrinal requirements for the conduct of large-scale offensive combined-arms operations (nuclear or nonnuclear), involving rapid maneuver and deep penetration into the enemy defense.
- Continue to field new weapons, concentrating on increasing the combat power and technological sophistication of the Ready force. In the near term, continue to field the T-64B and T-80 tanks, the BMP-2 with 30-mm gun, attack helicopters, the SA-11 SAM, self-propelled artillery, and improved tactical surface-to-surface missiles. In the mid-to-long term, continue to field improved systems, including two new tanks. These new—and projected—tanks, artillery, and infantry fighting vehicles have greater firepower, mobility, and protection

from antitank weapons than systems now widely fielded, and the new ground air defense systems are more lethal and easier for the troops to use than the systems they replace. These new weapons will be more costly, more difficult to produce, and, in some cases, will have increased maintenance requirements.

- Maintain weapons distribution priorities first to the Soviet forces opposite NATO's Center Region, next to Soviet forces opposite China, and then to the strategic-reserve military districts. Give priority for tank modernization to Soviet forces in Eastern Europe. Complete the current tank-modernization program for forces opposite NATO's Center Region by the end of the 1980s.

- Replace new weapons generally at or slightly below the same rate at which systems they are replacing were introduced and continue to hand down older equipment to low-priority units.

- Continue the equipment-modernization program but increase the rate of modernization of self-propelled artillery. The priority for self-propelled artillery deployments will be to forces opposite NATO's Center Region.

- Continue research and development of new technologies for weapons applications and begin to use them in limited numbers as technology can be adapted to force needs.

Taking account in our projections, however, of the fact that the Soviets have been unable to complete similar undertakings, we therefore believe that *resource constraints and the very size of the Ground Forces will preclude their realization of all of their goals*. We expect the gap in capability between the Ready and Not-Ready divisions to increase and equipment modernization to be limited primarily to forces opposite NATO's Center Region, which will continue to receive the majority of land armaments production, with forces elsewhere receiving few weapons directly from production.

Operational and Tactical Concepts. Despite all their problems, the Soviets are narrowing the gap between their doctrine, which has remained remarkably consistent in its basic content, and their capabilities to conduct theater-force operations. Soviet writings indicate the following objectives for the development of operational and tactical concepts:[1]

- Focus of maneuver unit control, allocation of combat and service support, and application of allocated strategic assets at the theater of military operations level to maintain continuity of operations.

- Increased emphasis on combined arms at the *chast* (separate battalion, regiment, or brigade) and *soyedineniye* (division or corps) levels.

- Continued emphasis on the tank, which remains the predominant conventional weapon on the battlefield. More and better tanks, infantry combat vehicles, self-propelled artillery, antitank guided missiles, and air defense weapons for armored forces.

- Increased role of aviation, especially for airstrikes (fire support), air assault, air transport, and helicopters.

- Maintenance of the tempo of attack—combat actions characterized by high tempo of operations, rapid and deep exploitation, night combat, and use of the element of surprise.

- Development of a capability to conduct independent (or semi-independent) operations by tactical formations, including those of the new corps.

- Use of electronic warfare and direct attack means—what the Soviets call radioelectronic combat—to degrade the enemy's troop control while maintaining effective control over their own troops.

Although we believe the basic character of the Ground Forces will remain intact through the 1990s, their continued reliance on armor and the heavy investment that they have made in armored forces will require them to develop concepts and forces to counter NATO's increasingly lethal conventional weapons.

[1] Sources: Writings of Marshal N. Ogarkov (Chief of General Staffs, 1982; Maj. Gen. I. Vorobyov (official Ground Forces Spokesman—Frunze Military Academy), 1980, 198[illegible]

Indeed, the Soviets already appear to be experimenting with innovative new operational concepts that provide the framework for change through the 1980s. Furthermore, their large force structure offers them some flexibility in developing new force employment options.

Potential for Dramatic Change

Our baseline projections—as explained in this paper—reflect continued growth in force capabilities, albeit at a slightly slower rate. We have made selected trade-offs on regional and weapons programs so we could emphasize key regions and programs. The uncertainty inherent in our projections, however, has caused us to consider alternatives to our projected force developments.

In the near term we see little room for dramatic departures from our baseline projections. Programs that would have significant impact on order of battle, weapons, organizations, and doctrinal development are already either being introduced or in the late stages of testing. There may be error, however, in our estimate of the year in which full-scale deployment begins for newly fielded systems (we tend to project such systems in earlier and at higher rates of deployment than actually occurs).

Our projections are most subject to error in the mid-to-long term due to either our misinterpretation of the impact of the influencing factors or our misreading of how the force development mechanism will react to the stimuli we have predicted. In this time frame, therefore, we see the most potential for a dramatic change from our projections. There may be some change in all areas of force development in the mid-term, that is as early as the late 1980s. Although we believe individual changes will be moderate, the net results of all potential changes could be substantial. We believe that major departures from past practices and concepts are more likely to occur in the long term: mid-1990s and beyond. Such changes might occur as new technologies—not now anticipated—become available, as the leadership has time to react to domestic and external demands, and as the force development mechanism has time to implement decisions.

We judge that Soviet decisions on reallocation of resources among the services provide the most potential for a dramatic change from our projections. Should the Soviets overcome their economic difficulties or should they reallocate resources from other services to the Ground Forces, our projections may be too low. Ground Forces advocates could make the case that parity of strategic and theater nuclear weapons tends to act as a restraint against their use by either side, thus reemphasizing the value of conventional forces. If, on the other hand, Soviet economic difficulties become even worse than we expect, the Ground Forces almost certainly would enter a period of stagnation and probably would even suffer a reduction in force.

Important changes seem possible, if not likely, in:

- The size of the Ground Forces. The Soviets might decide to reduce the Ground Forces regardless of the economic situation. There are stresses appearing in the force which a reduction would help to ease. So far, all the indicators point to a continued, albeit slow, growth in force size. Nonetheless, a substantial reduction in the number of Not-Ready divisions later in the 1980s—during the height of the manpower shortage—remains a possibility. Such a reduction probably could only be accomplished by a new Soviet leadership that had consolidated its authority sufficiently to override the objections of the military leadership that retains its preoccupation with land campaigns and remains committed to the need for a large force structure.

- Soviet agreement to mutual force reductions. Such an agreement could substantially alter force structure requirements in forces opposite NATO or China. Only opposite NATO, however, would a substantial reduction in force structure, readiness, and the rate of equipment modernization provide potential for economic savings. It also would provide the best potential for manpower savings.

- Force capabilities in the Persian Gulf, Middle East, and Southwest Asia. The Soviets might decide to accept the added burden of improving their capabilities there. They might view a buildup of some six to 12 divisions and an increase in equipment modernization as a reasonable improvement. For example, they might use some of these to strengthen their grip on Afghanistan. Such forces could be transferred to the southern USSR from the strategic reserve, although this would reduce the Soviets' reserves opposite both NATO and China.

- Intervention in neighboring countries. If further intervention occurred, we would expect it to result in a continuing Soviet military presence. Even if the Soviets were to intervene in a Warsaw Pact country where Soviet forces are already stationed (Poland, for example), we would expect them to increase the size of their forces somewhat. We would expect to see a substantial increase in their regional force structure if the Soviets were to intervene in a country where Soviet forces are not now stationed—such as Iran or Pakistan.

- Weapons developments—which could dramatically change total force combat potential and move another major force reorganization from the late 1990s to the year 2005. If we have substantially underestimated how soon the Soviets can field weapons with radically new technology (it takes the Soviets an average of 13 years to develop new technology), then we have missed the impetus for another major force reorganization—on the scale of the one now under way. Such an event is highly unlikely before the mid-1990s, however.

Implications and Conclusions

We believe trends in the development of the Ground Forces and the Soviets' perception of a growing threat—especially as they view prospects for substantial improvements in NATO capabilities—will cause them to reevaluate sometime during the 1980s how they plan to fight NATO. Indeed, this reevaluation may already have begun.

A profound revolution . . . is taking place . . . in connection with the development of thermonuclear weapons, rapid advances in electronics, development of weapons based on new physical principles, as well as in connection with the extensive qualitative improvement of conventional weapons. This in turn is influencing all other aspects of military affairs, particularly the development and improvement of forms and models of military questions, and consequently the organizational structure of the troops . . . and the improvement of weapons systems and control agencies.

Marshal of the Soviet Union
N. V. Ogarkov
Chief of the Soviet General Staff
Always Ready To Defend the Homeland, *1982*

The Soviets see various developments that will have a bearing on their plans for force employment, including the:

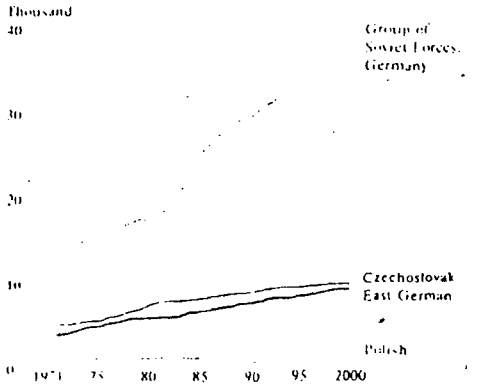
- Increased threat from NATO, which has weapons of high lethality and has changed its concepts for combat operations.

- Growing requirements along the USSR's southern borders.

- Growing disparity in capability between Ready and Not-Ready forces.

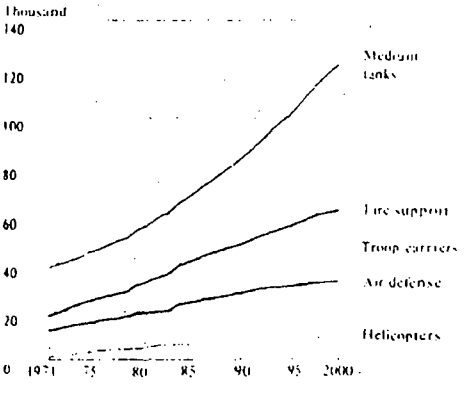
- Growing divergence in capabilities between Soviet and East European forces as the East Europeans continue to fall further behind in equipment modernization, reorganization, and adoption of Soviet operational and tactical concepts (figure 14).

Figure 14
Combat Potential Trends Opposite NATO's Center Region, 1971-2000*



*Totals projected for 1984-2000.

Figure 15
Trends in Soviet Ground Forces Combat Potential by Weapon Class, 1971-2000*



*Projected for 1984-2000.

We believe these stresses—together with the focus of control at the theater level, emerging improvements in target acquisition and reconnaissance, increased capabilities for the application of firepower, and the creation of the new corps—are the framework for changes the Soviets may make in plans for achieving their wartime objectives, especially for NATO, and which will emerge during the 1990s

The Soviets already are testing new employment concepts. We suspect that these new concepts may affect Warsaw Pact war planning as follows:

- *Focus on exploiting weaker military capabilities of smaller NATO countries.* The Pact would attempt to enhance its potential for success and reduce its casualties by avoiding highly lethal weapons systems. Any Pact attack against NATO probably would focus on weak points in NATO's forward defense (the smaller NATO nations), while perhaps conducting holding actions against stronger US and West German forces. The Pact forces would attempt deep penetrations of NATO defenses, followed by attempts to attack the flanks or to encircle the forces of stronger NATO countries.
- *Employment options for non-Soviet Warsaw Pact forces.* The role of East Europeans, who are a key element of the Pact's first strategic echelon and make up about 40 percent of Pact divisions opposite NATO's Center Region, may become less certain. Opposite NATO's Southern Region, Soviet forces in the Odessa Military District already are modernizing at an increased rate; we believe this may reflect acknowledgment of the weakness and unreliability of Romanian forces. It is also possible, however, that Odessa is undergoing a programed upgrade, one not especially related to the Romanian situation.
- *Employment of Soviet reinforcements from the western USSR.* [redacted] the Soviets are at least experimenting with early reinforcement, or even replacement options, for East European forces. The new corps, if manned at higher levels

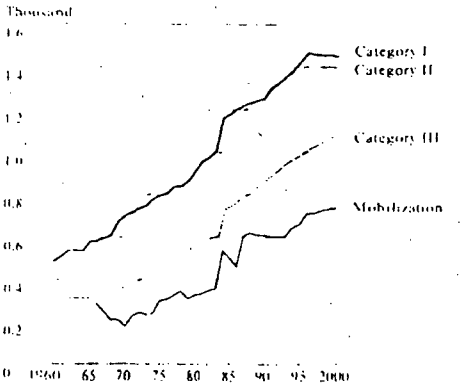
in peacetime as we expect, may offer an improved option for rapid reinforcement. Furthermore, because of Poland's difficulties in modernizing its army, as well as questions of its reliability, we expect an increased role for the 11th Guards Army from the Baltic Military District, perhaps for early employment against NATO's Dutch and Danish corps.

- *Application of firepower.* Wider use of improved conventional munitions—including use of tactical surface-to-surface missiles in conventional fire roles—and improved target acquisition, fire control, communications, and staff procedures will result in more effective fires on high-value targets.

Expected Growth of Combat Potential. The combat potential of the Soviet Ground Forces is expected to continue to increase through the year 2000 at about the same rate as in the early 1980s:

- Tanks, fire support (particularly tube artillery), and infantry fighting vehicles will provide the largest increases in capabilities gained from weapons systems (figure 15).
- Divisions probably will provide the majority of capability increases derived from units. We believe the potential of Ready divisions will continue to increase at a faster rate than that of Not-Ready divisions (figure 16).
- Soviet forces opposite NATO's Center Region almost certainly will continue to receive the majority of the benefits from Ground Forces improvement programs. This will severely limit equipment modernization programs in all other regions but should continue to be sufficient for Soviet needs opposite NATO. We believe these forces will continue to provide about 40 percent of the total Ground Forces combat potential.

Figure 16
Average Divisional Raw Combat Potential by Readiness Category, 1960-2000*



*Projected for 1984-2000

- Soviet forces opposite China are projected to receive the next-largest share of improvements (we calculate this region will continue to represent about 25 percent of the Ground Forces total).