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# The Readiness of Soviet Ground Forces

Interagency Intelligence Memorandum

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## II. THE SOVIET AND US READINESS SYSTEMS

### Soviet Readiness System

1. The Soviets maintain their units at varying degrees of readiness in peacetime. Their most combat-ready ground formations are airborne divisions and divisions in the groups of forces in Eastern Europe and, to a lesser degree, divisions along the western and eastern borders of the USSR. They believe, however, that a period of prehostilities tension probably would provide sufficient warning and time for lower strength units in the interior to mobilize and prepare for war. Their readiness philosophy is therefore predicated on the maintenance of a credible combat-ready force opposite the primary areas of perceived threat and the retention of a much larger but less ready force within the USSR.

2. The Soviets divide their ground units into two broad readiness categories: units that are "expanded," "filled up," or "ready" (*razvernutaya*) in peacetime and those that are not (*nerazvernutaya*). These broad categories reflect readiness distinctions in terms of manning, equipment, training, and missions. A unit is considered "expanded" or "ready" if it can conduct combat operations with little or no mobilization. This determination is correlated with the availability of sufficient personnel to commit a predetermined number of crew-served weapons to battle. One Soviet source, for example, reported that his tank company was considered "ready" when it had enough tank crews to commit 70 percent of its tanks to combat. Another source stated that his artillery unit was considered "combat ready" when it had an approximate strength of 70 percent and could deploy most of its equipment to the field without help from reservists. Thus, "expanded" or "ready" units, in effect, are those that are at least minimally combat ready for operations in peacetime. For convenience, this IIM refers to units as either "ready" or "not ready."

3. The Soviet force readiness management system is extremely flexible. A well-prepared force is maintained in Eastern Europe where Soviet interests are critical and where an indigenous Soviet population base is unavailable for mobilization. In the western

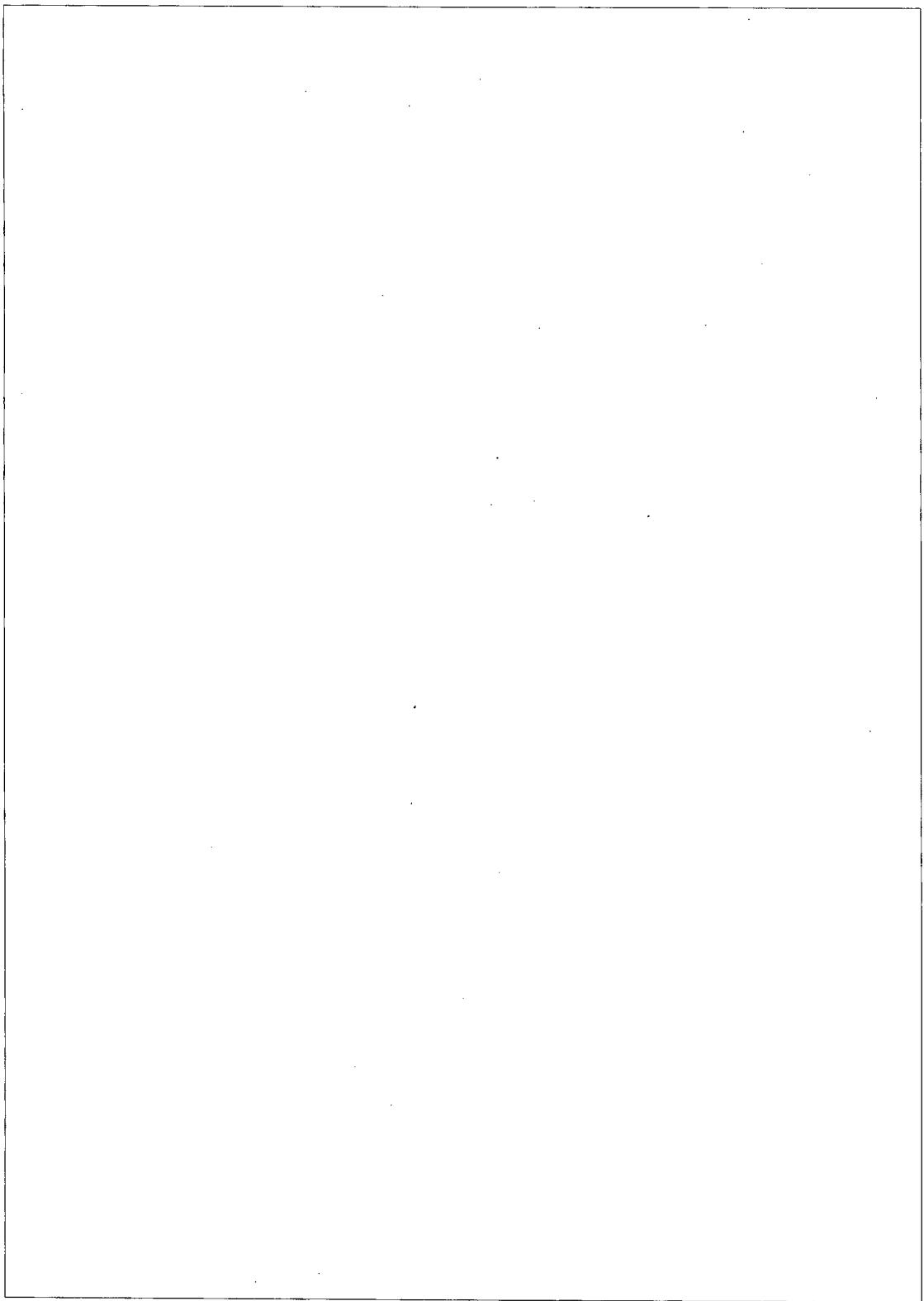
USSR a "mixed" readiness posture is maintained around a small nucleus of "reduced-strength ready" units and a large number of cadre or "not ready" units that are not prepared for immediate operations. In the interior of the USSR, most units are maintained in low-strength "not ready" status. The Soviet system also is evident in microcosm within large units in which some subunits are kept in a highly prepared and trained status while others are kept in a cadre or "reduced-strength ready" status. For example, a division might be composed of one or more "ready" regiments while all other regiments are in cadre status, or "not ready."

### Division Manning

4. There are distinct differences in peacetime manning in Soviet units; we have identified six general manning levels into which divisions can be grouped (see table II-1). We believe Soviet nondivisional units are manned in a similar fashion, although less information is available on manning practices within these units.

5. **Full-Strength Ready Divisions.** Full-strength ready (*diviziya polnogo sostava*) divisions do not require mobilization with reservists and have all their authorized equipment. All 30 tank and motorized rifle divisions in the groups of forces, six airborne divisions (including one in Afghanistan), three motorized rifle divisions in Afghanistan, and one tank division in Mongolia (see figure II-1) are maintained at this level. The "present for duty" strength of these divisions varies on a daily basis. If alerted during an emergency, assigned personnel who are not present for duty within the division would be recalled.

6. **Reduced-Strength Ready Divisions.** Forty-two Soviet divisions fall within the manning parameters for reduced-strength ready divisions (*diviziya soskrashchennogo sostava*). We have identified two general manning variations within these divisions: some are manned at between 70 and 85 percent of wartime strength, and others from 55 to 70 percent of wartime



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## THE READINESS OF SOVIET GROUND FORCES

Information in this document is preliminary; data on force strength levels, order of battle, and weapon inventories is current as of January 1982. Information on those held 210 Soviet divisions. A few additional divisions have been formed since then.

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PREFACE

This Interagency Intelligence Memorandum, approved by the National Foreign Intelligence Board (NFIB), on 26 October 1982, was commissioned by the Director of Central Intelligence in response to a request by the Secretary of Defense for an in-depth analysis of the readiness posture of the Soviet Ground Forces. The Memorandum draws, in part, on research and analysis published in more detailed studies by the Defense Intelligence Agency and the Central Intelligence Agency. These studies (not reviewed or approved by NFIB) are cited throughout the Memorandum. [redacted]

The Memorandum contains a number of comparisons of Soviet and US forces. These are included only to provide a framework for reference in viewing Soviet readiness. The reader should not conclude from these comparisons superiority on either side in meeting wartime requirements. The reliability of data on Soviet forces varies considerably from one region to another, particularly for weapons inventories (see annex C). [redacted]

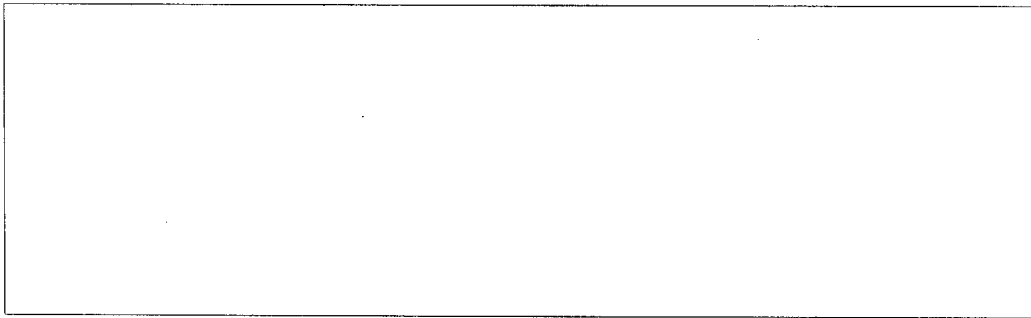
This Memorandum does not address in detail the readiness of non-Soviet Warsaw Pact forces or problems inherent in organizing and executing coalition warfare. Nor does it address warning of war. The times associated with the mobilization and preparation of forces for war in this document should not be interpreted as warning time. [redacted]

The Memorandum was produced under the auspices of the National Intelligence Officer for General Purpose Forces. It was prepared by an interagency working group consisting of representatives of the Defense Intelligence Agency, the Central Intelligence Agency, and the Assistant Chief of Staff for Intelligence, Department of the Army. Contributions were provided by the US Army Foreign Science and Technology Center and the US Army Missile Intelligence Agency. The Memorandum was drafted by [redacted] Directorate for Research, Defense Intelligence Agency. It was coordinated within DIA and with the Directorate of Intelligence, Central Intelligence Agency; the National Security Agency; and the intelligence components of the military services. (U)

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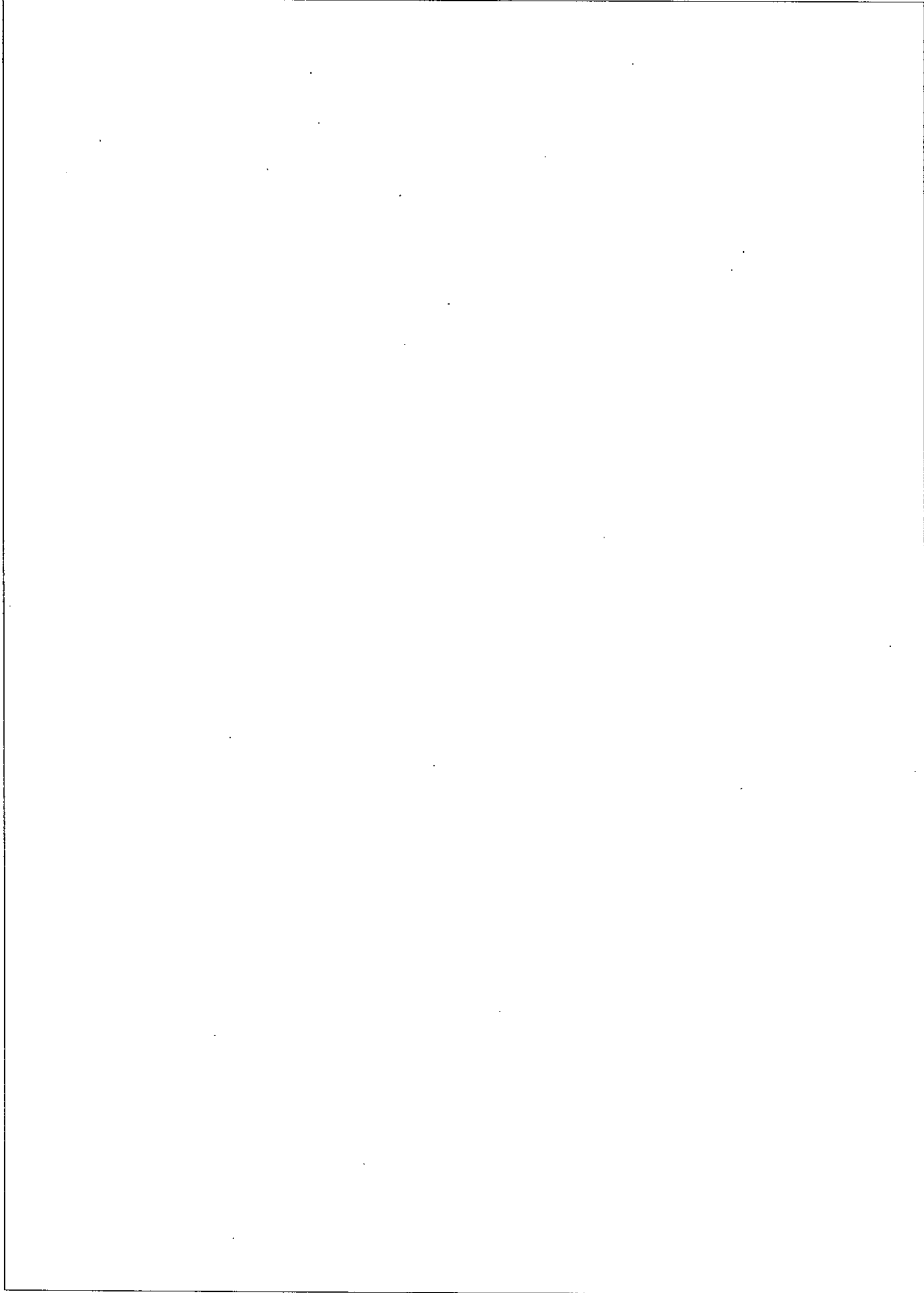


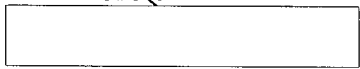


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## PRINCIPAL FINDINGS

The Soviets make a clear distinction between "ready" and "not ready" portions of their ground forces:

- "Ready" units are the most highly manned and the best equipped and trained, and they are at least minimally prepared for combat operations with little or no mobilization.
- "Not ready" units require extensive mobilization and probably would not be available for immediate combat operations. While the necessary reservists can be mobilized quickly, the Soviet reserve system does not immediately convert "not ready" units into cohesive fighting units. Rather, the units must train if they are to perform proficiently in high-intensity combat.

The most combat-ready Soviet units are five airborne divisions in the USSR, 30 motorized rifle and tank divisions in Eastern Europe, one airborne and three motorized rifle divisions in Afghanistan, and one tank division in Mongolia:

- These divisions are manned at or near full strength, are fully equipped, and complete a full annual training program. They could complete normal alert actions and disperse out of garrison in 36 to 60 hours.
- Another 42 divisions, located primarily along the eastern and western borders of the USSR, are maintained in a peacetime "ready" posture but at somewhat lower manning and training levels. These could complete the mobilization and dispersal process in two to four days but would not be as fully prepared for combat because of their lower peacetime training status.

Well over half of the Soviet divisions (103 cadre-strength divisions and 25 mobilization base divisions), as well as much of the nondivisional support structure, are "not ready" for combat in peacetime:

- This skeletal element of the force requires substantial preparation to overcome deficiencies in manning, equipment, and training, particularly if the units are to be committed to offensive operations in a combat environment such as that expected in Europe.

- The time required for these units to complete the mobilization process and move to dispersal areas would vary from 3.5 to 9 days. We believe, however, that they would require 19 to 33 days of training to be trained to the "ready" divisions' minimum standard for offensive combat.

The Soviets believe that a period of prehostilities tension probably will provide the time necessary for "not ready" units to mobilize and prepare for war:

- The Soviets may increase the readiness of selected elements of their "not ready" forces prior to full-scale mobilization, thus shortening postmobilization preparation time.
- Although they could do so within 11 days, the Soviets do not necessarily intend to mobilize all 210 divisions at once. They stress the initial availability of forces in each theater of military operations, but the force generation process is designed essentially to maintain a steady flow of well-trained and well-equipped units into the battle area. By maintaining large strategic reserves and skeletal units, the Soviets can generate additional forces to fight a prolonged war.

The Soviets have two basic options in preparing their forces for combat. Between these lie a range of potential trade-offs between combat proficiency and force availability:

- They could choose to commit forces as soon as they have completed the alert and mobilization process. Should they opt for this approach, a large number of divisions would not have received a level of training equivalent to that of the "ready" divisions, and the Soviets would have to accept a degradation in the combat potential of the mobilized force.
- Alternatively, the Soviets could take a more deliberate, phased approach, allowing time to more fully prepare and train their forces, thus increasing their combat potential—by more than 50 percent for the full 210-division force.
- Although circumstances would determine which option the Soviets chose, we believe they would opt for the more deliberate process when they had some control over time and events.

Our findings on the readiness of forces opposite NATO's Central Region are as follows:

- For an offensive against NATO, the Warsaw Pact could—as noted in NIE 11-14-81 (*Warsaw Pact Forces Opposite*

NATO)—organize its forces in Eastern Europe into three fronts as the first echelon and those in the western USSR into two fronts as a second echelon.

- Ultimately, the readiness and combat potential of Pact forces opposite NATO would be heavily dependent on the non-Soviet Warsaw Pact (NSWP) forces that would make up over half of the divisions in the three first-echelon fronts.
- Soviet planners could elect to begin hostilities with the three first-echelon fronts before the two second-echelon fronts from the USSR were in place and available.
- Moscow could ready the Soviet elements of the Pact three-front force—as its nucleus—in three to five days, excluding movement time. These forces would not require additional training. Although we have not assessed NSWP readiness in detail, we believe that some NSWP divisions (six East German and a few Polish and Czechoslovak) could be mobilized as quickly as the Soviet divisions. We do not believe that all non-Soviet forces could be as fully prepared in as short a time as their Soviet counterparts stationed in Eastern Europe.
- If the Soviets were willing to make units in the USSR available for combat immediately after alert and mobilization, the two fronts in the western USSR could be readied in 10 to 11 days plus whatever movement time was required. Many of the divisions, however, would have a relatively low combat potential due to low peacetime training levels.
- Should the Soviets choose to train “not ready” units to achieve a higher level of combat proficiency (consistent with minimum requirements for offensive operations against NATO), the preparation time for the two fronts in the western USSR and thus for a full five-front force would be phased over a considerably longer period of about 45 days. The additional time invested in postmobilization training for the “not ready” divisions would increase the theoretical combat potential of this 62-division force by as much as 30 percent.

Our findings on the readiness of forces opposite Southwest Asia are as follows:

- With the exception of airborne divisions and those divisions committed in Afghanistan, the majority of Soviet forces available for offensive operations in Iran and the Persian Gulf are

poorly equipped (relative to their counterparts opposite NATO's Central Region) and maintained in a "not ready" status in peacetime.

- The Soviets could mobilize in 60 to 80 hours a force of the size we believe they would require for limited operations into the Azarbayjan region of Iran (three to five divisions plus support forces). The forces for a full-scale invasion of Iran (some 20 or more divisions) could be mobilized in five to six days. To achieve a high level of potential combat proficiency, however, they would require additional time for postmobilization training. Without such training the 20 divisions would have the combat potential of only seven to eight of the better equipped and trained Soviet divisions in Eastern Europe.
- We believe the Soviets would take whatever time was available to train these forces up to higher proficiency levels: some 20 to 30 days of training after mobilization could double the combat potential of the 20-division force.

Our findings on the readiness of forces opposite China are as follows:

- Twenty-five of the 56 Soviet motorized rifle and tank divisions in the Far East opposite China are maintained in a "ready" status in peacetime. Many of these "ready" divisions are nearly as well equipped as their counterparts stationed in Eastern Europe.
- We believe the Soviets could mobilize these 25 "ready" divisions in the Far East and complete their training in seven to nine days.
- The Soviets could mobilize the 31 "not ready" divisions in 11 days but these divisions would require extensive training to achieve a level of proficiency comparable to that maintained in peacetime by the ready divisions.
- The full 56-division force could be mobilized and trained to a minimum level of proficiency we judge sufficient for offensive operations over a 50-day period. This additional training theoretically would increase the combat potential of the total force by some 60 percent.

The Soviet logistic, manpower and equipment mobilization, training, and maintenance systems all are geared to a rapid mobilization and short, intense war. Although we question the long-term effectiveness of



the repair and maintenance system, we detect no shortcomings that would affect initial force readiness. The major factor affecting initial readiness is the semiannual (spring and fall) rotation of new conscripts into units to replace troops completing their active duty tours. For about a month after troop rotation, new conscripts (about 20 percent of the ground force manpower) receive basic training in provisional training units. This practice results in a semiannual degradation in unit proficiency, cohesion, and readiness.



SUMMARY

**Introduction**

This Memorandum assesses the readiness of Soviet ground forces and estimates the time required to convert the forces from a peacetime to wartime posture and to engage in operations in a mid-to-high-intensity combat environment.<sup>1</sup> It focuses on those situations in which the Soviets have the initiative in planning and preparing their forces for offensive operations at a time and place of their choosing. It also assesses the theoretical combat potential of the forces both upon mobilization and after a period of training.

The Memorandum does not attempt to isolate the most likely scenario under which the Soviets would prepare for combat or to predict their decisions regarding the extent and duration of these preparations. Rather it assesses the relative costs and benefits—in quantifiable terms—of Soviet choices, which range between two basic options:

- The Soviets could commit their forces as soon as they had been alerted and mobilized. Should they opt for this approach, they would have to accept a degradation in the combat potential of the mobilized force due to the low peacetime training levels of a large portion of the force.
- Alternatively, the Soviets could allow varying amounts of time following alert and mobilization to more fully prepare and train their forces. This would extend overall preparation time but would enhance the total force's combat potential.

While we believe the Soviets would prefer to make deliberate, time-phased preparations prior to committing their forces, the point at which they would consider their forces prepared for offensive operations would depend on the region in which the conflict was to take place, the nature of the opposition, and other scenario-dependent considerations.

Soviet military doctrine has been heavily influenced by World War II experience, when the lack of preparedness and initiative resulted in a

<sup>1</sup>A mid-intensity conflict is defined as a war in which the belligerents employ the most modern technology and resources, excluding nuclear, chemical, and biological weapons. A high-intensity conflict would include the use of these weapons.



three-year campaign on Soviet soil against invading German forces with devastating territorial, human, and economic losses. Soviet writings and exercises stress the ability to respond to a surprise attack and to conduct a successful emergency defense of the homeland. Today, the Soviet readiness and mobilization systems emphasize speed and efficiency to maximize the initial availability of forces and to assure that any ground war is not fought on Soviet territory.

The maintenance of a large standing army in peacetime, concepts for the echelonment of forces, the existence of a quick-reaction mobilization system, and a doctrine that emphasizes offensive operations are all designed to prevent a recurrence of the catastrophe the USSR suffered during the initial stages of World War II. Postwar developments in weapons technology—particularly the availability of nuclear weapons—have only increased the emphasis Soviet planners place on the decisive nature of the “initial period of war.” Nonetheless, the Soviets expect their forces to be able to respond to a full spectrum of situations and have structured and equipped their forces for a protracted conflict. The Soviet force generation process is designed to maintain a steady flow of well-trained and well-equipped units into the battle area. By maintaining large strategic reserves and skeletal units, the Soviets can generate additional forces to fight a prolonged war.

Soviet and US definitions of combat readiness are similar, focusing on the capability of a unit, force, or equipment to perform the missions or functions for which it is organized or designed. In its most basic terms, readiness involves two essential elements: the *availability* of forces, as determined by such factors as alert status and manpower and equipment levels; and the *preparedness* of forces, which depends on such factors as maintenance, training, logistics, and weapon system capabilities. This Memorandum addresses readiness in its broadest sense, taking into account both availability and preparedness.

The development of combat readiness in its broad sense involves two key factors or variables: *force generation*—or the conversion of forces from a peacetime to wartime status—and the development of *combat potential*. Force generation is largely a function of time, involving those actions necessary to alert, mobilize, and deploy a force for combat. Combat potential, simply defined, is a force's assessed capability to carry out its wartime mission. More specifically, it is the product of numerous factors, including the effectiveness of weapons, the ability of personnel to operate their weapons and equipment, and skill in carrying out integrated and coordinated maneuvers. The first

factor is primarily a function of technology; the latter two are established, maintained, and enhanced by training. (c)

In assessing combat potential, this Memorandum takes into consideration both the weapon systems available to Soviet divisions and the training status or proficiency of the divisions. It distinguishes between the combat potential of high-strength divisions—such as those in the groups of forces in Eastern Europe—and that of divisions in the interior of the USSR. These latter divisions suffer by comparison with the forward-deployed divisions on two counts. First, they are equipped for the most part with older models of equipment and frequently lack major items such as armored personnel carriers. Second, they are unable in peacetime to develop the same level of combined-arms skills as high-strength divisions because of their lower level of peacetime manning and training. The skills required to approach or achieve full proficiency could be developed by increasing peacetime manning and then expanding training programs, or by conducting a period of postmobilization training before the units enter combat.

Combat potential also is affected by the capability of the force's command, control, and communications system; leadership and troop morale; and the ability of a logistic base to sustain combat operations. These factors are assessed in general terms, but they are not quantified. In assessing and comparing the readiness of Soviet units in quantifiable terms, the Memorandum focuses on the time required for divisions and nondivisional support units to move through the force generation process and on the combat potential of these forces in terms of weapon effectiveness and training proficiency.

### Background

*Theater War: The Soviet View.* Soviet doctrine for theater warfare emphasizes numerical superiority, offensive action, massed firepower, and maneuver. Defense is considered merely an expedient or temporary phase until an offensive can be mounted. Emphasis is placed on combined arms operations involving the coordinated use of armor, aviation, artillery, and motorized infantry to breach enemy defenses either from the march or in breakthrough operations.

To sustain continuous and powerful offensives, the Soviets echelon their forces and assign specific missions and forces to each echelon. The success of the Soviets' echelonment strategy is largely dependent on effective timing and the ability to develop the quick, powerful offensives stipulated by their doctrine. Although the Soviets stress the rapid offensive in their doctrine they also recognize the necessity for planning

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## Soviet Alert Stages

**Constant combat readiness:** the normal peacetime readiness status of the Soviet armed forces. Routine training and activity take place. Leaves and passes may be granted at commanders' discretion.

**Increased combat readiness:** unit personnel are recalled from leave or TDY, and division subunits conducting field training return to garrison. Mobilization and contingency plans are reviewed and updated by staffs. Unit personnel remove equipment from storage and begin to prepare reception points for reservists. The division's field command post (CP) is partially manned and deployed to a dispersal area. Staffing of the garrison command center is increased.

**Threat-of-war combat readiness:** units deploy from garrison to dispersal areas. The control of the division is transferred from the garrison command center to the field CP. Selected reservists with specialized skills may join the unit.

**Full combat readiness:** full mobilization takes place and reservists join their units. Equipment mobilized for the unit also arrives. Units establish their wartime command, control, and communications structure. At this point, the alert, dispersal, and mobilization process is complete.

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and preparing for a protracted conflict and have structured their forces accordingly.

**The Force.** The Ground Forces constitute the largest component of the Soviet armed forces. The peacetime force structure consists of 210 divisions at varying levels of manning and readiness, including 25 inactive mobilization base divisions, consisting of pre-positioned equipment configured in unit sets. Motorized rifle and tank divisions are the basic tactical maneuver formations. Ground units are most heavily concentrated in the groups of forces and the military districts of the western USSR opposite NATO and opposite China.

### The Soviet Readiness System

The Soviet and US readiness systems both divide units into "ready" and "not ready" categories. The United States generally has more demanding manpower requirements for its "ready" units. The Soviets, however, require full equipment sets in all "ready" units, while marginally ready US units can lack up to about one-fourth of their equipment. Equipment operational readiness rate requirements are roughly comparable in Soviet and US ready units. There is a major difference in approach, however, in the way Soviet and US officials rate the contribution of training to overall readiness, and US standards appear more demanding.

Soviet "ready" units are at least minimally prepared for combat operations with little or no mobilization. "Not ready" units, however,

Table 1

**Manning in Soviet Divisions**

Division Manning Level	Characteristics
Full-strength ready	Manned at or near 100 percent of wartime authorized strength Includes divisions in groups of forces Total: 40 divisions
Reduced-strength ready I	70-85 percent of wartime authorized strength Located in border areas of USSR Total: 22 divisions
Reduced-strength ready II	55-70 percent of wartime authorized strength Some elements at cadre strength Total: 20 divisions
High-strength cadre	25-40 percent of wartime authorized strength Includes all training divisions One motorized regiment in each motorized rifle division is manned at reduced strength Total: 51 divisions
Low-strength cadre	5-25 percent of wartime authorized strength; cadre manpower concentrated in staff elements and driver/mechanic skills Usually motorized rifle divisions Total: 52 divisions
Mobilization base	No permanently assigned staff Usually collocated with active units Total: 25 divisions

would require large-scale mobilization and therefore would not be available for immediate combat operations. This system is also found in microcosm within large units: a division might be composed of one or more "ready" regiments while all other regiments are "not ready." There also is a distinct difference between peacetime and wartime authorized manning levels in most Soviet units. A total of six discernible manning levels have been identified in divisional units, and nondivisional units are apparently manned in a similar fashion (see table 1). The units that are most combat ready and that have the highest strength are airborne divisions, divisions in Eastern Europe and Afghanistan, and, to a lesser extent, divisions along the western and eastern borders of the USSR [redacted]

In addition to classifying units as "ready" or "not ready" for combat, the Soviets maintain their units in one of four alert stages (see inset) that dictate their peacetime activities. These alert stages provide for and define an orderly, manageable transition for Soviet units from their normal peacetime posture to full combat readiness. [redacted]

Together, the unit categorization system and formal alert stages reflect the Soviets' approach to readiness:

- They have an orderly approach to the management of manpower and materiel, and concentrate them with "ready" units located in regions where Soviet interests are most vital or perceived threats are most severe.
- They apparently expect warning of war and will take advantage of the period prior to hostilities to systematically increase both the preparedness and alert condition of a portion or all of their forces.

**Readiness Reporting and Monitoring.** The Soviet readiness reporting and inspection system provides a systematic but inflexible and burdensome approach to monitoring manpower availability, training status, and the technical condition of equipment. When conscientiously applied, the system can give commanders valuable tools with which to manage resources in order to meet standards. Inspections are stringent and competently administered in the groups of forces outside the USSR, although grades are somewhat inflated. Throughout most of the interior of the USSR, however, unit readiness is far more dependent on individual command emphasis than on any formal monitoring system. Readiness reports are often greatly inflated or falsified and inspections are frequently lax, perfunctory, or circumvented.

In both the Soviet and US armies, unit readiness is a command responsibility. Soviet commanders, however, delegate most equipment readiness authority to technical officers. No single Soviet readiness reporting document equivalent to the US unit status report is known to exist, but divisions do prepare a monthly report that summarizes training accomplishments and conditions bearing on the "internal order of units." There is no evidence that Soviet commanders are required—or permitted—to provide subjective evaluations of unit readiness.

### Determinants of Readiness

**Manpower.** Manpower availability should not be a constraining factor on overall Soviet force readiness. The Soviets have a large manpower pool upon which to draw and a well-organized and efficient mobilization system. Variations in leadership ability would be found throughout the ground forces, but it is difficult to predict whether leadership deficiencies would be more prevalent in the less ready force elements. Morale problems exist in peacetime, but calculating their overall impact on readiness or performance in combat is problematic. Nonetheless, the nationwide problem of alcoholism and the evident

morale and discipline problems in units in Afghanistan are factors that the Soviets must take into account in their own readiness assessments [ ]

Soviet law requires universal male military service, and few qualified males escape some form of military service. Conscripts are discharged into the reserves automatically after completion of mandatory service and remain subject to callup until age 50. More than 50 million Soviet males are estimated "fit" for military service. Of this total, at least 25 million are reservists who have been added to the reserve pool since January 1970. We estimate that all active Soviet divisions and nondivisional units, as well as inactive mobilization bases, could be mobilized to their wartime authorized strength without depleting the pool of reservists who have served as conscripts in the ground component of the armed forces within the last five years. [ ]

**Mobilization System.** Historically, the Soviets have succeeded in meeting their military manpower and equipment needs, most notably during World War II. Their ability to respond to crises under conditions of partial mobilization were tested during the Czechoslovak crisis and most recently during the invasion of Afghanistan. In these and other instances of partial mobilization, the manpower and equipment generation system functioned well. The Soviet mobilization system has not been tested on a large scale, however, since World War II. Nonetheless, if Soviet planners have the initiative and time to prepare deliberately for military operations, they should be able to minimize the difficulties that would be likely to characterize a large-scale emergency mobilization. [ ]

**Training.** Premilitary training has been obligatory since 1968 and consists of an abbreviated basic training program designed to ease the transition of youths into military service. Postinduction training is conducted according to a common set of regulations, and the annual training program is divided into winter and summer periods. Each six-month cycle begins when conscripts are rotated into units to replace conscripts completing their active duty tours. For about the first month after troop rotation, new conscripts receive basic training in provisional training units formed within each division. This results in a semiannual degradation in unit proficiency, cohesion, and readiness. [ ]

The unit training program formally begins when new conscripts complete their basic training and are integrated into units. Heavy emphasis is placed on individual, squad-level, and platoon-level training. Field exercises—designed to perfect individual and collective skills

and to train commanders and their staffs in simulated combat—are considered essential to forge unit integrity and proficiency. The peacetime manning of units determines the extent of the training program which they actually can accomplish in peacetime. "Ready" divisions carry out the full training program and appear to accomplish the required number of exercises. Other divisions train to the extent possible with their assigned personnel but cannot complete a full training program.

The Soviet reserve system provides a large pool of manpower with military skills. Reservist training, however, is of uneven quality and frequency at best. Individual reservists seldom participate in the full number of callups allowed, and rarely train with the same unit more than once. The bias of the reserve system for conscripts with recent active service leads to a heavy turnover on unit mobilization rosters and limits the development of cohesion in low-strength units. Upon mobilization, these units would require training to achieve or approach the levels of training proficiency attained in peacetime by "ready" units.

*Equipment.* Soviet ground force equipment is designed to satisfy both technical and tactical requirements on the battlefield. Each new system or product improvement is designed to enhance the system's capability on the battlefield, to be produced in large numbers, and to be equal or superior to comparable existing or projected Western counterparts. A program of continuous product improvement and incremental development makes maximum use of each piece of equipment or subcomponent during its life cycle. Soviet designers, however, have demonstrated they are capable of much more than incremental product enhancement when the situation demands it. Soviet design practices provide a product that is usually quite reliable and repairable.

The size of the Soviet force structure requires an incremental approach to the fielding of new equipment which results in a lack of standardization; complicates the problem of providing spares, ammunition, and maintenance skills to match requirements; and makes it more difficult for the reserve system to match man and machine.

The practice of peacetime storage of large quantities of weapons and equipment to reduce wear and tear and conserve resources distorts the demand for repair parts and maintenance that would be faced in wartime. The repair supply system supports an artificially low vehicle population that would greatly expand in wartime. There is only minimal stockage of repair parts below division level, so the system is heavily dependent on motor transport.

The Soviet system for maintenance support of combat units is well suited to a fast-moving conflict with frequent replacement of frontline units, but the system is dependent on this rotation for repair and maintenance of equipment. Divisions forced to remain in mid-to-high-intensity combat for longer than five to six days could begin to encounter serious maintenance problems as losses overwhelmed repair capabilities. The Soviet maintenance organization, however, is tailored to support Soviet tactical concepts that do not require sustained maintenance support for frontline divisions.

*Sustainability.* The Soviets have stockpiled large quantities of ammunition and POL to satisfy their operational concepts for supporting and sustaining committed forces. The Soviets also recognize the need for a flexible and responsive transportation system to move supplies when and where required. Current assessments indicate that the Soviets have sufficient quantities of ammunition and POL to supply their initial wartime needs.

#### **Assessment of Readiness**

The Soviets have two basic options in preparing their forces for combat. Should circumstances dictate, they might choose (or be forced) to commit their forces as soon as they had completed the alert and mobilization process. Should they opt for this approach, a large portion of the force would not have received a level of training equivalent to the "ready" divisions and the Soviets would have to accept a degradation in the combat potential of the mobilized force. Alternatively, the Soviets could take a more deliberate, phased approach, allowing time to more fully prepare and train their forces. Although circumstances would determine which option the Soviets chose, we believe they would opt for the more deliberate process when they had some control over time and events.

#### **The Force Generation Process**

The Soviets have developed an orderly, systematic process to convert their forces from a peacetime to a wartime posture. This process is designed to provide units with sufficient manpower, equipment, and training to engage in effective operations. Soviet, Warsaw Pact exercises often include a prehostilities warning period—varying between several weeks and several months—during which preparatory unit training could occur. Following the commencement of hostilities, the preparation of uncommitted forces could continue. Historically, the Soviets have recognized the need to prepare their forces for combat and have done so to the extent that time was available.



The force generation process begins with a unit's peacetime status. The completion of the alert and mobilization process, however, does not produce a fully combat-ready force. The time required to produce a prepared force is the sum of the time necessary to alert, mobilize, train, and move the force, and to accomplish final preparations and deployments.

**Alert, Dispersal, and Mobilization.** The mechanism for mobilizing the force is the formal alert system, which involves the transition of units through four alert stages. The time required to execute measures associated with each alert stage would vary depending on the threat. In an extreme emergency, such as reaction to (or anticipation of) a surprise attack, an attempt would be made to mobilize rapidly and accomplish required alert measures on compressed time lines. Under less extreme circumstances the process would be accomplished gradually.

**Divisional Mobilization.** The time required for Soviet maneuver divisions (tank, motorized rifle, and airborne) to complete the alert, dispersal, and mobilization process would vary between one and a half and nine days. About 90 percent of the 210 Soviet divisions could complete this process in six and a half days, but many divisions would require additional training to increase their proficiency to levels comparable to the full-strength ready divisions. Within one and a half to two and a half days, however, the full-strength ready divisions could complete preparations, vacate their garrisons, and move to nearby dispersal areas.

**Nondivisional Units.** The time to alert and mobilize the large nondivisional support base—units assigned at front and army level—would range from 11 hours to over six days. These units include artillery, missile, engineer, signal, chemical defense, intelligence, electronic warfare, air defense, and logistic organizations.

**Command and Control Structure.** We estimate it would take about three to five days to establish the command and control structure of a front and its subordinate armies in the groups of forces in Eastern Europe and about seven to 10 days to the internal military districts of the USSR.

### **Training**

If time were available, we believe Soviet units would conduct postmobilization training to improve combat proficiency. Reduced-strength and cadre units would require individual refresher training for reservists, unit training and exercises, and staff training—including

command post exercises—to increase their proficiency to levels comparable to full-strength ready divisions. The duration and type of training actually conducted would depend on the time available and the unit mission. [ ]

Divisions in the Group of Soviet Forces in Germany (GSFG) and other groups of forces are the most proficiently trained in the force structure. At the end of their semiannual training cycles, when they are at peak proficiency, we believe they would meet Soviet standards for commitment to offensive operations in a mid-to-high-intensity combat environment. In our analysis of the semiannual training cycle of these divisions, we have established three milestones that we use as a yardstick for assessing the proficiency of other divisions:

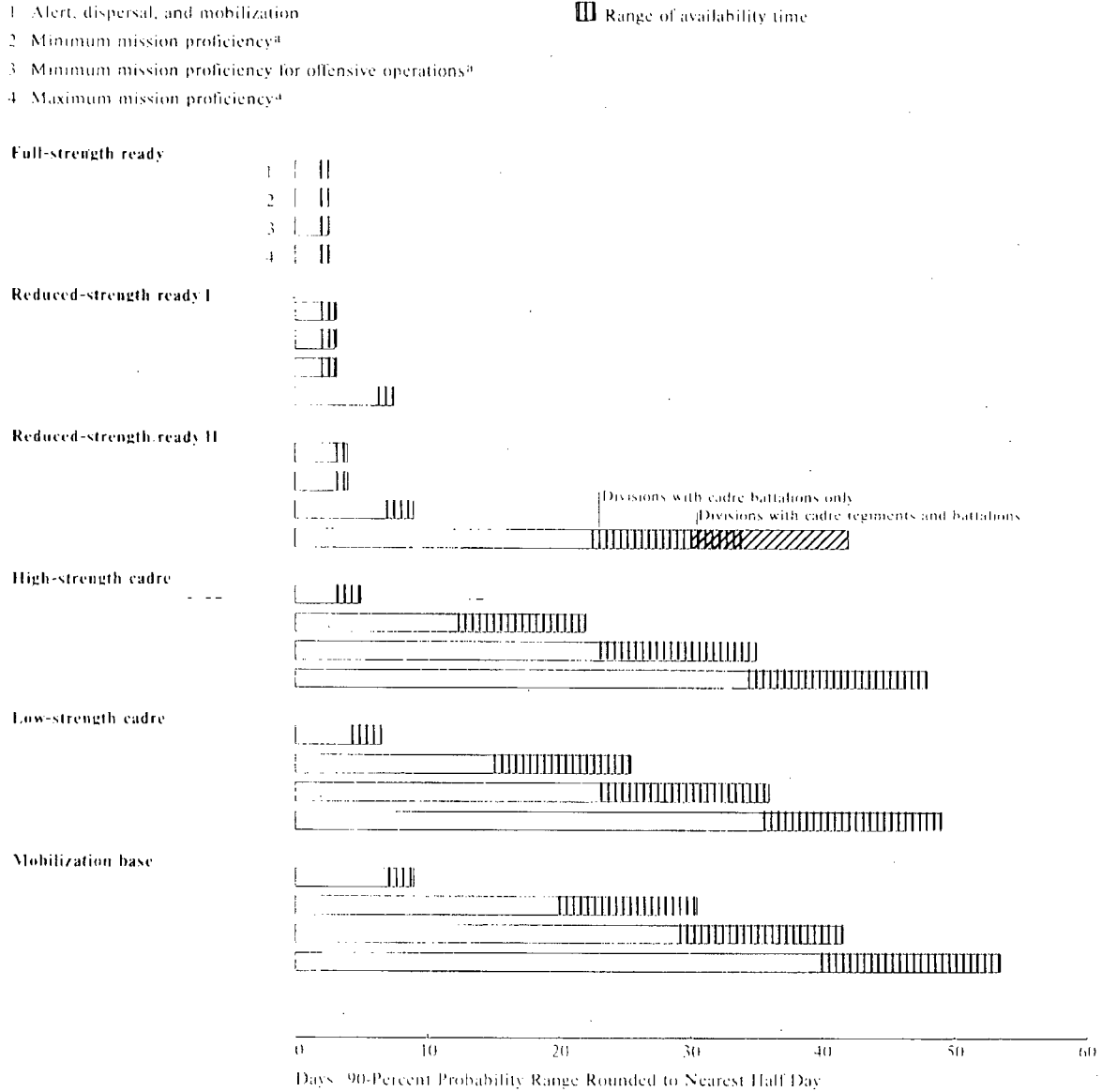
- **Minimum Proficiency:** The lowest level of training proficiency, which occurs at troop rotation. We believe that, given a choice, the Soviets would prefer not to commit divisions at this point, but would do so in a situation in which they did not have control of time and events.
- **Minimum Standard for Commitment to Offensive Operations:** Occurs about three months into the training cycle, after conscripts have completed basic training and company- and battalion-level training is well under way. At this point, we believe, divisions have achieved sufficient cohesion and proficiency for commitment to offensive combat in a mid-to-high-intensity combat environment.
- **Maximum Proficiency:** Occurs at the end of each training cycle, when all required training has been completed [ ]

The amount of training required by Soviet divisions to attain GSFG standards varies depending on peacetime manning levels and the proficiency level desired. If sufficient time had elapsed since troop rotation, "ready" divisions would require either no training at all or up to five days of training to achieve minimum proficiency for offensive operations, while "not ready" divisions would require from 19 to more than 30 days of training to achieve the same standard. If the required training were conducted after mobilization, division availability for commitment to combat would vary from one and a half days (for full-strength ready divisions) to more than 40 days (for mobilization bases) (see figure 1) [ ]

### Weapon Effectiveness

Major variations in weapon effectiveness occur between "ready" and "not ready" divisions and on a regional basis. "Ready" divisions

Figure 1  
Cumulative Force Availability of Soviet Divisions



<sup>a</sup>Includes mobilization time

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generally are better equipped, with newer, more capable weapon systems and have a full complement of weapons. "Not ready" divisions, particularly low-strength cadre and mobilization base divisions, are equipped with older weapons and do not have a full complement of equipment. On a regional basis, the Western Theater of Military Operations (TVD) facing NATO's Central Region not only contains more divisions than other TVDs, but its divisions typically have a higher overall equipment effectiveness. Soviet divisions opposite China in the Far Eastern TVD in aggregate are the next best equipped in the force structure, followed by those in the Southwestern TVD, those in the Strategic Reserve, and those in the Southeastern and Northwestern TVDs (see figure 2). Divisions opposite areas of lesser threat clearly have a lower priority for more modern and effective weapon systems.

### Overall Combat Potential

Combat potential is a function of numerous factors, including mission proficiency (determined by training); equipment effectiveness; command, control, communications, and intelligence; leadership and morale; and the logistic support base. While the last three are important—particularly in assessing opposing forces—we have not attempted to quantify these factors. Therefore, our analysis focuses on two key quantifiable factors: equipment effectiveness and mission proficiency. Although weapon effectiveness generally would remain static during the force generation process, mission proficiency—and therefore overall combat potential—would increase through training; the more time allocated for force generation—particularly training—the greater the payoff in terms of combat potential.<sup>2</sup>

We believe that the Soviets plan essentially to employ only those forces stationed in the vicinity of a given operational TVD, reinforced perhaps with reserves from the military districts in the central USSR. There is little indication that they contemplate major redeployments of high-readiness units from one theater command to another. In fact, the major variations in overall readiness and combat potential between the TVDs suggest that each is uniquely structured, manned, and equipped to meet contingencies peculiar to that region.

On a regional basis divisions in the Western TVD would have the highest overall combat potential upon completion of alert and mobiliza-

<sup>2</sup> Our quantification of theoretical combat potential uses the effectiveness of a unit's weapons as a baseline measure of combat potential. Mission proficiency is expressed as a coefficient. If the unit's mission proficiency is assessed to be less than the theoretical maximum (1.0), the overall combat potential of the unit will be degraded. We believe that, in general, this approach is consistent with the Soviet approach to assessing combat capability.

Table 2

**Theoretical Increase in Divisional Combat Potential by Theater<sup>a</sup>**

TVD	Aggregate Combat Potential Upon Mobilization	Aggregate Combat Potential After Training	Percent Change <sup>b</sup>
Strategic Reserve	3,200	7,400	133
Southwestern TVD <sup>c</sup>	6,250	12,450	99
Southeastern TVD	6,050	11,100	84
Northwestern TVD	1,750	2,900	64
Far East TVD	16,750	26,800	60
Western TVD <sup>c</sup>	27,550	35,850	30

<sup>a</sup> Divisional combat potential is the aggregate combat potential of all maneuver divisions within a theater of military operations.

<sup>b</sup> The change in combat potential is influenced chiefly by the ratio of "ready" and "not ready" divisions within a theater. Essentially, the greater the number of "ready" versus "not ready" divisions, the fewer the number of divisions that need training; thus the lower percentage change in combat potential.

<sup>c</sup> Does not take account of non-Soviet Warsaw Pact forces, which, if included in the TVD force, would increase the score.

tion, due to the large number of highly trained full-strength ready divisions and the concentration of modern weapon systems. Divisions in the Far Eastern TVD opposite China would have the second-highest combat potential, followed by those in the Southwestern, Southeastern, and Northwestern TVDs and the Strategic Reserve.

With postmobilization training, overall combat potential could increase anywhere from 30 percent in the Western TVD to more than 100 percent in the Strategic Reserve (see table 2). This gain in combat potential would vary according to the ratio of "ready" to "not ready" divisions in each TVD and would exact a cost in terms of force availability. "Not ready" divisions require from 19 to more than 30 days of training (plus time required for alert and mobilization) to achieve minimum standards for commitment to offensive operations. "Ready" divisions require little or no training to reach this same level of mission proficiency.

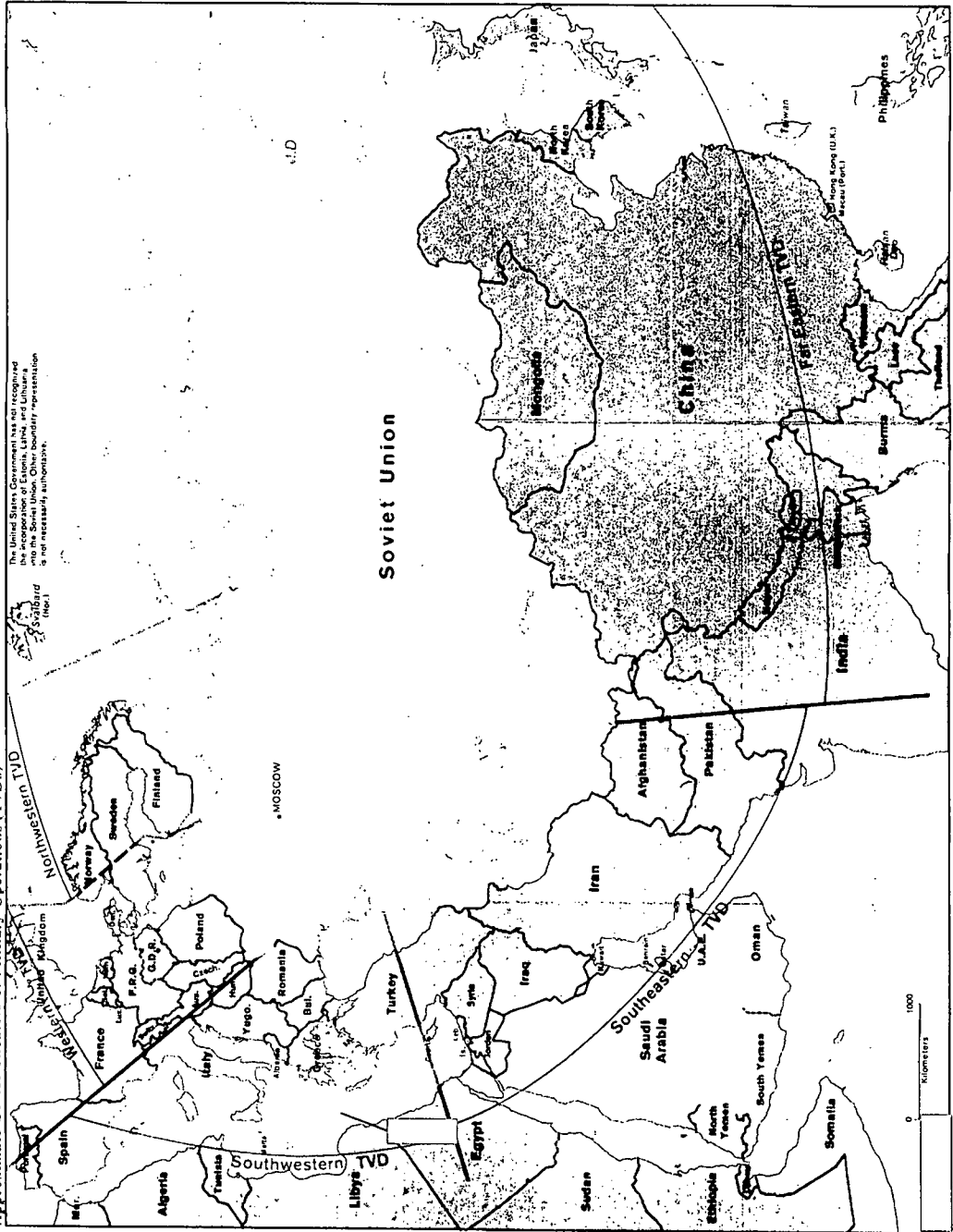
### Implications

#### Forcewide Readiness and Combat Potential

The Soviets appear to have systematic and effective procedures for alerting and mobilizing their forces. The completion of the alert and mobilization process, however, does not provide a fully trained, completely combat-ready force. Because of the substantial differences in the combat potential of "ready" and "not ready" divisions after mobilization, we believe that the Soviets would use any additional time available for training prior to committing "not ready" units to offensive operations in a mid-to-high-intensity combat environment.

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Figure 2  
Approximate Soviet Theaters of Military Operations (TVDOs)



We believe the Soviets could alert and mobilize all 210 of their divisions within 11 days. Upon completion of alert and mobilization alone, however, many of the 210 divisions would have a greatly limited combat potential. Overall, this force would have less than half of the total combat potential we believe could be generated. Most of this initial force capability would be provided by the 82 "ready" divisions.

Completion of the minimum training we estimate would be necessary to prepare for operations in a mid-to-high-intensity combat would extend the availability time for the 210-division force to 50 days. However, this would be a phased process, and more than 90 percent of the force (194 divisions) should be available 35 days after alert. The additional time taken to train "not ready" divisions theoretically would increase the overall combat potential of the force by 50 percent.

#### Force Readiness by Theater

The Soviets have structured and deployed their ground forces for theater warfare and would rely primarily on those forces in-theater to defeat any enemy. Specialized forces, such as airborne divisions, and central reserves could reinforce one theater or another, but Soviet forces basically are designed to operate in each TVD independently. Readiness, therefore, is largely a theater problem for the Soviets and is most usefully assessed on that basis. The three Soviet theaters that encompass the bulk of Soviet forces and most of the Soviet frontier are the Western, Southeastern, and Far Eastern. Of these, the Western TVD is unique: it is the only one of the three to which non-Soviet allies contribute forces—well over half of the first-echelon divisions.

*The Western TVD.* The Soviets believe that a war in Central Europe probably would occur only after a period of heightened tension during which they would take steps to increase the readiness of their forces in the Western TVD. Under such circumstances, we believe the Soviets could phase their preparations, bringing various elements of their forces to full combat readiness sequentially. For an offensive against NATO, the Warsaw Pact, at least initially, could organize its forces in Eastern Europe into three fronts and those in the western USSR into two fronts. Soviet planners could elect to begin hostilities with three fronts before the two reinforcing fronts from the western USSR were in place and available. The Soviet concept of operational and strategic echelonment is designed to provide for the time-phased introduction of fresh forces into battle to sustain an offensive.

**Readiness for Operations in the Western TVD.** The Soviets have two options in preparing to conduct operations in the Western TVD: they could initiate operations immediately after completion of the alert and mobilization of sufficient units to flesh out the required force; or they could take additional time to conduct training and improve the proficiency of the mobilized force, increasing its combat potential [ ]

If the Soviets were willing to commit units immediately after alert and mobilization, they could generate the Soviet component of a three-front force in the forward area within three to five days. The two Soviet fronts in the western USSR could be readied in 10 to 11 days, excluding movement time (see table 3 and figure 3). If the Soviets chose to train "not ready" units to achieve a higher level of mission proficiency (consistent with minimum requirements for offensive operations against NATO), the preparation time for the Soviet portion of a five-front force would be phased over a considerably longer period of about 45 days. The training undertaken by "not ready" divisions would increase the overall combat potential of the 62-division Soviet force by about 30 percent [ ]

Ultimately, the readiness and combat potential of the three fronts in the first echelon would be heavily dependent on the non-Soviet Warsaw Pact (NSWP) forces that would make up more than half of the divisions in the first echelon. Polish and Czechoslovak divisions would be particularly important because they would provide the bulk of the forces on the northern and southern flanks. Although we have not assessed NSWP readiness in detail, we believe that some NSWP divisions (six East German divisions and a few Polish and Czechoslovak divisions) probably could be mobilized as quickly as the Soviet divisions. We do not believe that all non-Soviet forces could be as fully prepared in as short a time as their Soviet counterparts in the groups of forces. [ ]

**The Southeastern TVD.** Soviet planning for operations in Southwest Asia differs substantially from that for war in Central Europe, but the Soviets probably would not accept the risk of committing a hastily assembled, poorly prepared force. For operations in this region, the Soviets could mount a limited invasion of Iran to seize Azarbayjan with a combined-arms army (three to five divisions) and support elements. Large-scale operations, to seize control of Iran and the northern littoral of the Persian Gulf, would require 20 or more divisions and would probably be accomplished in two phases: secure northwestern, central, and northeastern Iran, including Tehran, and consolidate, resupply, and redeploy tactical aircraft to captured airfields; then seize the Khuzestan oilfield region and secure control of the Strait of Hormuz. The phased



Table 3

**Peacetime Readiness Posture of Soviet  
Divisions in the Western TVD<sup>a</sup>**

Readiness Status	Number of Divisions
<b>"Ready"</b>	
Full-strength ready	26
Reduced-strength ready I	7
Reduced-strength ready II	1
<b>"Not Ready"</b>	
High-strength cadre	11
Low-strength cadre	12
Mobilization base	5
<b>Total</b>	<b>62</b>

<sup>a</sup> Excludes two airborne divisions—a full-strength ready and a high-strength cadre (training) division—that could be employed in this or other theaters.

approach could also be combined with an early "grab" of the strait by heliborne or airborne forces, although they would be at risk until reinforcements arrived over land.

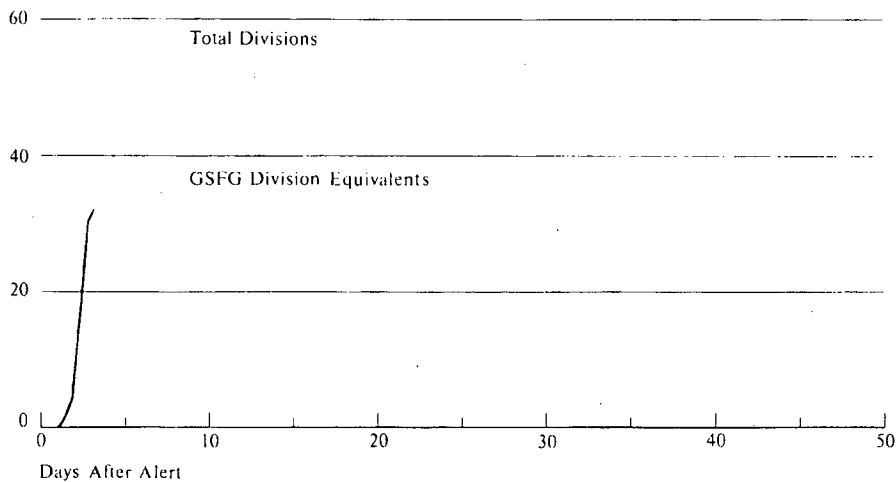
**Readiness for Operations in the Southeastern TVD.** The Soviets could generate the number of divisions required for a limited operation against Azarbayjan within about 60 to 80 hours after alert, and the forces required for large-scale operations within five to six days (see table 4 and figure 4). Without training, however, the combat potential of these forces would be extremely low, and the most combat-ready divisions would be those currently located in Afghanistan. Failure to provide training would add to the substantial risks inherent in a campaign in this region. If training were provided the Soviets could almost double the combat potential of the total force in 30 to 40 days after the initial alert.

**The Far Eastern TVD.** Soviet options in a Sino-Soviet conflict range from large-scale raids with limited objectives to a full-scale invasion of western and northeastern China. We believe that military as well as political considerations probably would discourage the Soviets from pursuing the total defeat and surrender of China or attempting the long-term military occupation of the Chinese heartland.

Soviet ground operations probably would be interspersed with short defensive periods during which enemy incursions would be repelled, followed by offensive operations that would achieve high rates of advance and attain desired military objectives. For offensive opera-

**Figure 3**  
**Force Generation Profile for Soviet Divisions: Western TVD**

Number of Divisions Available  
Upon Completion of Alert and Mobilization



Upon Completion of Required Training

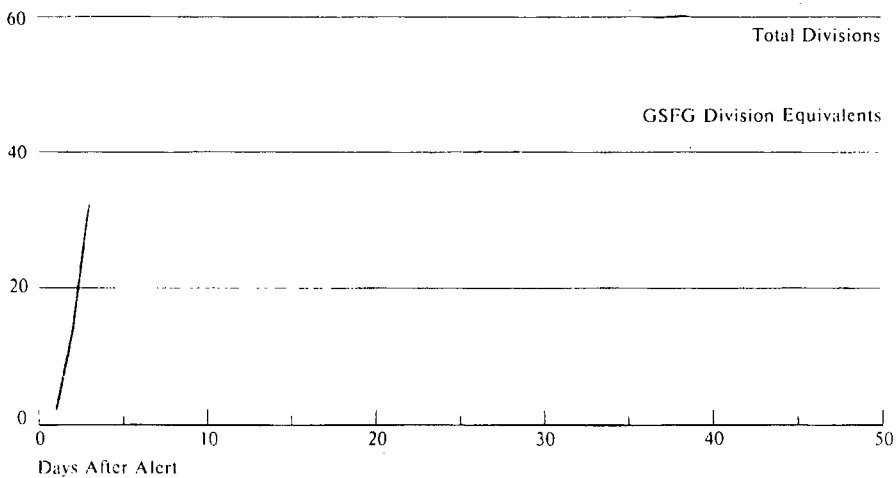


Table 4

**Peacetime Readiness Posture of Soviet  
Divisions in the Southeastern TVD<sup>a</sup>**

Readiness States	Number of Divisions
<b>"Ready"</b>	
Full-strength ready	3
Reduced-strength ready I	0
Reduced-strength ready II	4
<b>"Not Ready"</b>	
High-strength cadre	9
Low-strength cadre	11
Mobilization base	2
<b>Total</b>	<b>29</b>

<sup>a</sup> Excludes two full-strength ready airborne divisions that could be employed in this or another theater.

tions, Soviet forces probably would be organized into three primary fronts in the Far East, Transbaikal, and Central Asia Military Districts, and possibly a reserve front in the Siberian MD.

**Readiness for Operations in the Far Eastern TVD.** The Soviets could alert and mobilize 25 "ready" divisions in the Far East within four days (see table 5 and figure 5). Within 11 days after alert, the full 56-division force in the Far East could be mobilized and integrated into the theater command and control structure which exists in peacetime. Once mobilized, however, this force would need additional training to achieve a level of proficiency consistent with offensive operations in a mid-to-high-intensity environment. The "ready" divisions could be prepared for such operations within seven to nine days after alert, but "not ready" divisions would require between three to six weeks for alert, mobilization, and training.

Given the relatively low-combat potential of their forces upon mobilization, the Soviets would be likely to opt to complete training prior to launching a major three-front offensive. In a more limited campaign, however, they could choose to launch initial cross-border operations against relatively thin Chinese forward defenses and count on having sufficient time to prepare follow-on forces for commitment should they be required.

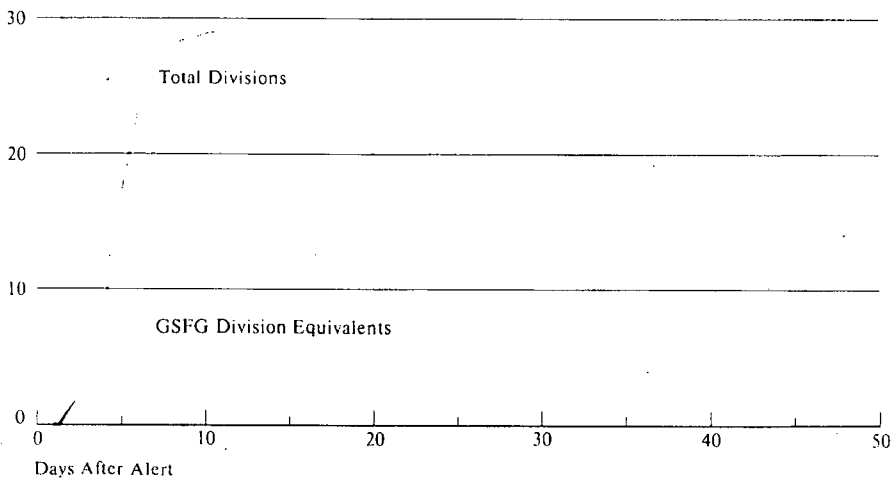
**Readiness Trends**

While the Soviets have continued a pattern of steady ground forces growth over the past 10 years (some 30 new divisions or mobilization

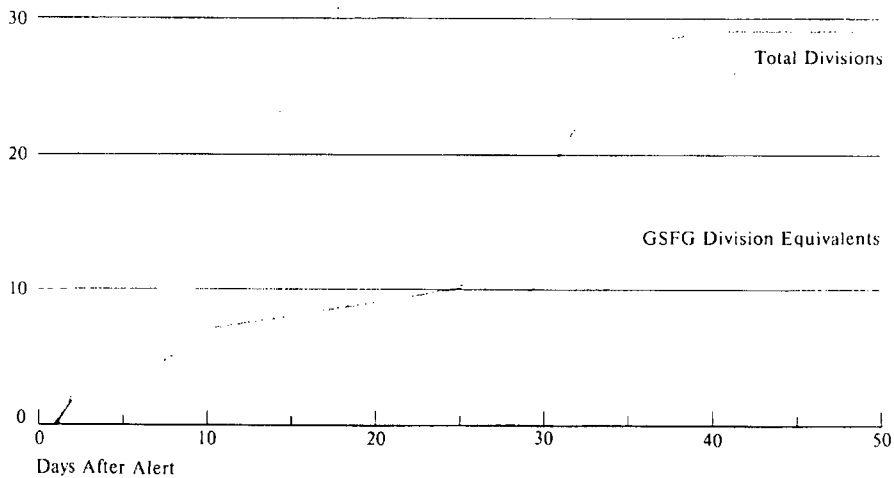


**Figure 4**  
**Force Generation Profile for Soviet Divisions: Southeastern TVD**

**Upon Completion of Alert and Mobilization**



**Upon Completion of Required Training**

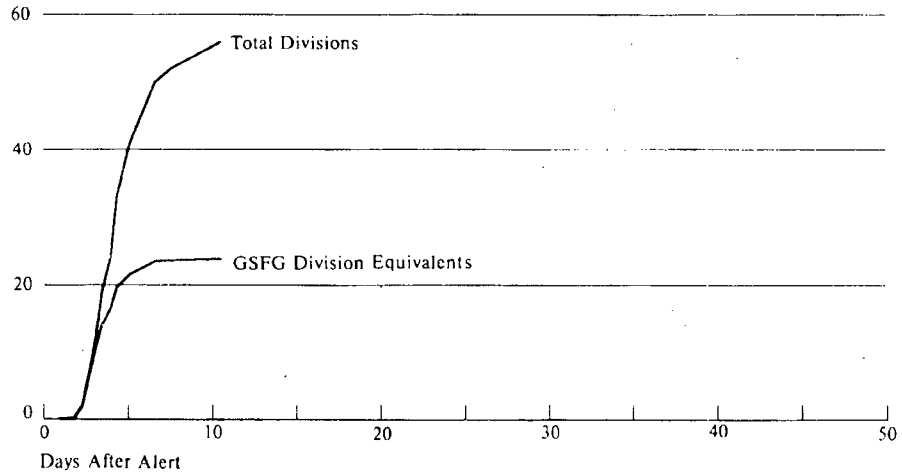


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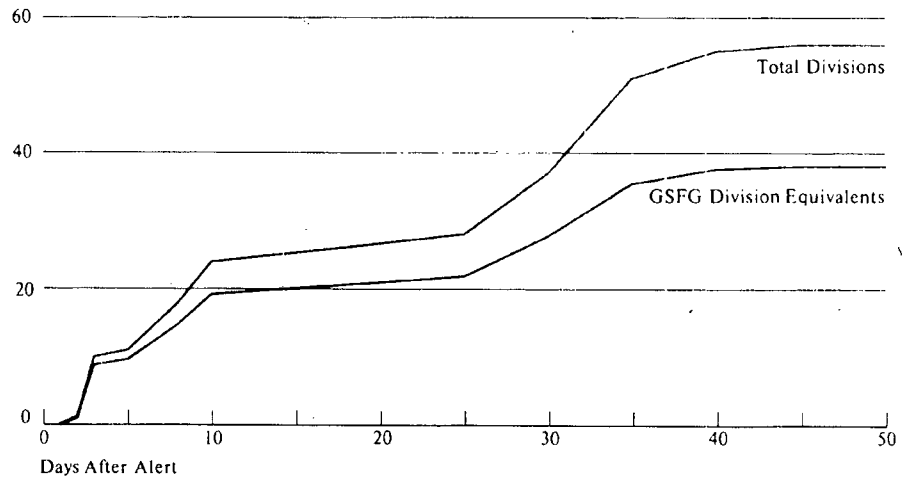
**Figure 5**  
**Force Generation Profile for Soviet Divisions: Far Eastern TVD**

Number of Divisions Available<sup>a</sup>

Upon Completion of Alert and Mobilization



Upon Completion of Required Training



<sup>a</sup> Excludes division in Kuril Islands.

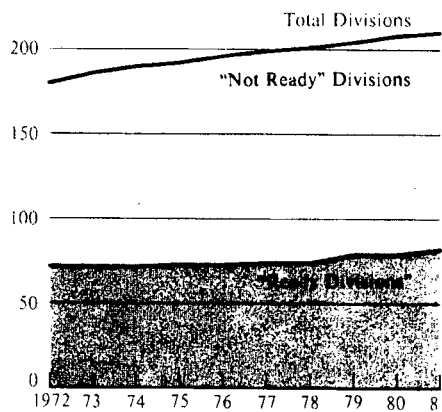
**Table 5**  
**Peacetime Readiness Posture of Soviet**  
**Divisions in the Far Eastern TVD<sup>a</sup>**

Readiness States	Number of Divisions
<b>"Ready"</b>	
Full-strength ready	1
Reduced-strength ready I	10
Reduced-strength ready II	13
<b>"Not Ready"</b>	
High-strength cadre	15
Low-strength cadre	11
Mobilization base	6
<b>Total</b>	<b>56</b>

<sup>a</sup> Excludes one reduced-strength ready I coastal defense division that is not deployed or oriented for operations against China.

bases have been created), there has been no appreciable change in the overall readiness posture. On the contrary, between 1972 and 1981, there was a drop of about 4 percent in the proportion of "ready" to "not ready" divisions in the forces (see figure 6). Although a few divisions have been upgraded from "not ready" to "ready" status, most new

**Figure 6**  
**"Ready" and "Not Ready" Maneuver Divisions**  
**in the USSR, 1972-81**



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divisions have been either manned at cadre levels or are being maintained as inactive mobilization base divisions. [redacted]

We do not anticipate a major, permanent change in the readiness posture of the Soviet forces over the next five years unless they perceive a substantial and lasting alteration of the threat in one region or another. Any effort to substantially upgrade their readiness posture would be problematic. The Soviets will continue to face dwindling manpower resources through the end of the decade, and a major increase in peacetime manning (except on an emergency basis by recalling reservists) in one region might require consequent reductions in other regions.

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## I. INTRODUCTION AND BACKGROUND

1. This Memorandum assesses the readiness of the Soviet Ground Forces and estimates the time required to convert the forces from a peacetime to wartime posture and to engage in operations in a mid-to-high-intensity combat environment.<sup>1</sup> It focuses on those situations in which the Soviets have the initiative in planning and preparing their forces for offensive operations at a time and place of their choosing. It also assesses the theoretical combat potential of the forces both upon mobilization and after a period of training.

2. The Memorandum does not attempt to isolate the most likely scenario under which the Soviets would prepare for combat or to predict their decisions regarding the extent and duration of these preparations. Rather it assesses the relative costs and benefits—in quantifiable terms—of Soviet choices, which range between two basic options:

- The Soviets could commit their forces as soon as they have been alerted and mobilized. Should they opt for this approach, they would have to accept a degradation in the combat potential of the mobilized force due to the low peacetime training levels of a large portion of the force.
- Alternatively, the Soviets could allow varying amounts of time following alert and mobilization to more fully prepare and train their forces. This would extend overall preparation time but would enhance the total force's combat potential.

While we believe the Soviets would prefer to make deliberate, time-phased preparations prior to committing their forces, the point at which the Soviets would consider their forces prepared for offensive operations would depend upon the region in which the conflict were to take place, the nature of the opposition, and other scenario-dependent considerations.

<sup>1</sup> A mid-intensity conflict is defined as a war in which the belligerents employ the most modern technology and resources, excluding nuclear, chemical, and biological weapons. A high-intensity conflict would include the use of these weapons. (U)

3. Soviet military doctrine has been heavily influenced by World War II experience, when the lack of preparedness and initiative resulted in a three-year campaign on Soviet soil against invading German forces with devastating territorial, human, and economic losses. Soviet writings and exercises stress the ability to respond to a surprise attack and to conduct a successful emergency defense of the homeland. Today, the Soviet readiness and mobilization systems emphasize speed and efficiency to maximize the *initial* availability of forces and to assure that any ground war is not fought on Soviet territory.

4. The maintenance of a large standing army in peacetime, concepts for the echelonment of forces, the existence of a quick-reaction mobilization system, and a doctrine that emphasizes offensive operations are all designed to prevent a recurrence of the catastrophe the USSR suffered during the initial stages of World War II. Postwar developments in weapons technology—particularly the availability of nuclear weapons—have only increased the emphasis Soviet planners place on the decisive nature of the "initial period of war." Nonetheless, the Soviets expect their forces to be able to respond to a full spectrum of situations and have structured and equipped their forces for a protracted conflict. The Soviet force generation process is designed to maintain a steady flow of well-trained and well-equipped units into the battle area. By maintaining large strategic reserves and skeletal units, the Soviets can generate additional forces to fight a prolonged war.

### Readiness

5. Soviet and US definitions of combat readiness are similar, focusing on the capability of a unit, force, or piece of equipment to perform the missions or functions for which it was organized or designed. The Soviet and US systems both establish quantitative and qualitative standards for manning, equipment, and training as peacetime measures of readiness. The Soviet philosophy is to maintain a combat-ready force opposite areas of threat while holding a large number



of less ready units, which can be prepared for war as time permits, within the USSR. The US Army philosophy is similar: to conserve resources, it normally maintains at the highest level of readiness only those units required early in support of contingency plans. Other units are assigned readiness goals according to their peacetime resources.

6. In its most basic sense, readiness involves two essential elements: the *availability* of combat forces, as determined by such factors as their alert status and their manpower and equipment levels; and the *preparedness* of combat forces, which depends on such factors as maintenance, training, logistics, and weapon system capabilities. This Memorandum addresses readiness in its broadest sense, taking into account both availability and preparedness.

### Methodology and Assumptions

7. The development of combat readiness in its broad sense involves two key factors or variables: *force generation*—or the conversion of forces from a peacetime to wartime status—and the development of *combat potential*. Force generation (see inset) is largely a function of time, involving those actions necessary to alert, mobilize, and deploy a force for combat. As such, it entails a phased process of (1) alert, dispersal, and mobilization; (2) postmobilization training and preparation; (3) movement to the combat zone; (4) final preparation for combat; and (5) deployment to combat. In this Memorandum we assess all aspects of the force generation process except those involving movement, which is highly scenario dependent.

### The Soviet Force Generation Process

**Alert and dispersal:** the process of alerting units and personnel, recalling personnel, returning units to garrison from training sites, making preparations within garrison, and moving to dispersal areas. Activities include removal of equipment from storage; loading of supplies; preparation for calling up and receiving reservists and mobilized transport vehicles (if required); receiving, reviewing, and/or updating operational and movement plans; and—in some cases—selective small-scale mobilization of reservists with specialized skills.

**Mobilization:** the process of calling up, receiving, and integrating reservists and equipment to achieve wartime manning and equipment authorizations. In an emergency, this process may be accomplished rapidly

after units have vacated their garrisons and moved to field dispersal locations. In a situation in which the Soviets have control of events, however, incremental or phased mobilization can occur within garrison over a period of weeks or months. Reservists who are called up for training and subsequently released are subject to immediate recall. Mobilization may or may not be discernible, depending in part on its scale and whether it is accomplished rapidly or incrementally. We believe the Soviets would attempt to accomplish incremental mobilization covertly in the guise of routine reservist training.

**Training and preparation:** the process of training mobilized personnel and preparing units to conduct combat operations. Time allocated for this process would depend on circumstances. If the Soviet leadership deems it necessary, some units may be committed immediately, while other units may have weeks or months to prepare for combat.

**Movement:** the process of moving units from alert dispersal areas to concentration or assembly areas in a theater of operations. The process includes the loading and unloading of units, as well as transit time.

**Final preparation for combat:** includes replenishment of ammunition and fuel consumed during movement; replacement of equipment and personnel losses suffered during movement; maintenance; and the integration of units into the command structure of the theater, front, and army in which they are to serve.

**Deployment to combat:** includes movement of units from concentration or assembly areas to attack positions.

8. Combat potential, simply defined, is a force's capability to carry out its wartime mission. More specifically, it is the product of numerous factors that affect the ability of a unit to operate and execute assigned missions, including the effectiveness of weapons assigned to the unit, the ability of unit personnel to operate these weapons, and the unit's ability to carry out integrated and coordinated operations. The first factor is primarily a function of technology; the latter two are established, maintained, and enhanced through training.

9. In assessing combat potential, this Memorandum takes into consideration both the weapon systems available to Soviet divisions and the training status, or proficiency, of the divisions. It distinguishes between the overall weapons effectiveness and training proficiency of fully manned divisions—such as those in the

groups of forces in Eastern Europe—and those in the interior of the USSR, which are usually less well equipped and manned at much lower peacetime levels. These latter divisions clearly are unable in peacetime to develop the same level of combined-arms skills as high-strength divisions because of their lower level of peacetime manning and training. The required skills to approach or achieve full proficiency could be developed by increasing peacetime manning in these divisions and expanding their training program or by conducting a period of postmobilization training before the units enter combat. Nonetheless, the combat potential of these divisions will remain less than that of divisions in the groups of forces because of older equipment. [ ]

10. Combat potential also is affected by the capability of the force's command, control, and communications system; leadership and troop morale; and the ability of a logistic base to sustain combat operations. These and other factors are assessed in general terms—some in detail—in chapter IV; however, they are not quantified. In developing a methodology to assess and compare the readiness of Soviet combat units in quantifiable terms, therefore, the Memorandum focuses on the time required for divisions and nondivisional support units to move through the force generation process and then assesses the combat potential of these forces in terms of weapon effectiveness and training proficiency. [ ]

### Theater War: The Soviet View

11. Soviet doctrine for theater warfare emphasizes numerical superiority, offensive action, massed firepower, and maneuver. The Soviets intend to fight any future war on the territory of their enemies. Accordingly, their forces plan to seize the initiative through offensive operations. Defense is considered merely an expedient or temporary phase until an offensive can be mounted and relentlessly pursued into enemy territory. [ ]

12. The Soviets believe that by fielding ground forces—especially tanks and artillery—numerically superior to those of their potential foes, they will be able to develop the quick, powerful offensives stipulated by their doctrine. Although their forces are in varying states of readiness, they expect a period of warning before war during which they could prepare for the offensive. As war begins, they plan to increase

their forces greatly on predesignated axes of attack. In executing their doctrine the Soviets emphasize combined-arms operations involving the coordinated use of armor, aviation, artillery, and motorized infantry to breach enemy defenses either from the march or in breakthrough operations. [ ]

13. Although the Soviets believe that a theater war would probably cross the nuclear threshold, they would prefer to fight the war with conventional weapons. During the conventional phase, the Soviets would strive to destroy an enemy's air forces, nuclear delivery systems, nuclear weapon storage sites, and command and control facilities while ensuring the survivability of their own. They would attempt to move highly mobile, self-sustaining armored formations deep into the enemy's rear early in the campaign to block attempts to thicken the defense, prevent lateral movement of reserves, and confront an enemy with the choice of using nuclear weapons deep in its own territory. [ ]

14. To sustain continuous and powerful offensives, the Soviets echelon their forces and assign specific missions and forces to each echelon.<sup>2</sup> An attacking army would have two echelons, with frontline divisions belonging to the first tactical echelon, and divisions in the rear making up the second. Each of these echelons also would be assigned its own tactical reserves. In a military theater of operations (TVD) such as the Western TVD in Central Europe, the first operational echelon would consist of the forward fronts in Eastern Europe. These forces would be expected to overcome NATO's forward defenses and defeat its main forces. The second operational echelon—fronts formed in the western military districts of the USSR—would exploit the first echelon's success, reinforce the offensive, and seize deep theater objectives. At the strategic level, the Western TVD with its first- and second-echelon fronts could be considered a strategic echelon, while reserve forces deep within the USSR could constitute a second strategic echelon. [ ]

15. The success of the Soviets' echeloning strategy would depend largely on effective timing. Although

<sup>2</sup>The Soviets distinguish between several different types of echelons: tactical, operational, and strategic. Each echelon has specific objectives assigned to it and encompasses forces within certain formations or geographic regions. Echelons are not reinforcements in the Western sense because each echelon is independent and is responsible for its own separate missions. Echelons, however, do have designated reserve forces. (s)

the missions of each echelon differ, the forces in each would face demanding tasks requiring considerable skill in executing rapid, coordinated large-unit maneuvers, troop control, and command initiative. The Soviets plan to maintain an average overall rate of advance of 40 to 50 kilometers a day.

16. Soviet doctrine for a rapid offensive is, of course, the ideal. The Soviets recognize the necessity of planning and preparing for a protracted conflict but would prefer to avoid it. Their concept of echeloning forces, with very large reserves in the USSR backing up highly prepared forces in Eastern Europe, gives them the capability of introducing fresh forces into the battle or conducting attacks on new axes if the first-echelon attacks were to fail.

### The Force

17. The Ground Forces are the largest component of the Soviet armed forces and are organized into branches of troops, including motorized rifle, tank, rocket and artillery, and airborne. The peacetime force structure consists of 26 armies, 10 corps, and 185 active divisions. An additional 25 mobilization base (inactive) divisions, consisting of pre-positioned equipment configured in unit sets, may be activated by mobilizing reserve personnel. Highly mobile motorized rifle and tank divisions are the basic tactical maneuver formations.

18. **Command and Control.** In peacetime, Soviet ground formations and units are subordinate to the 16 military districts (MDs) in the USSR and the groups of forces in East Germany, Poland, Czechoslovakia, and Hungary. The operational command of ground units in peacetime passes from the Minister of Defense through the Chief of the General Staff directly to the commanders of military districts or groups of forces. The commander in chief of the Soviet Ground Forces does not command units; his duties involve supervision of technical matters, research and development, and training.

19. The wartime command and control of Soviet forces would differ considerably from that observed in peacetime. In organizing for war, the Soviets would create high commands of forces in TVDs. Ground units would be incorporated into groupings of forces within a theater called fronts, whose structure could include units of all services, but would include at least

ground and air units. The Soviet Supreme High Command would exercise command and control over the theater commands through the General Staff.

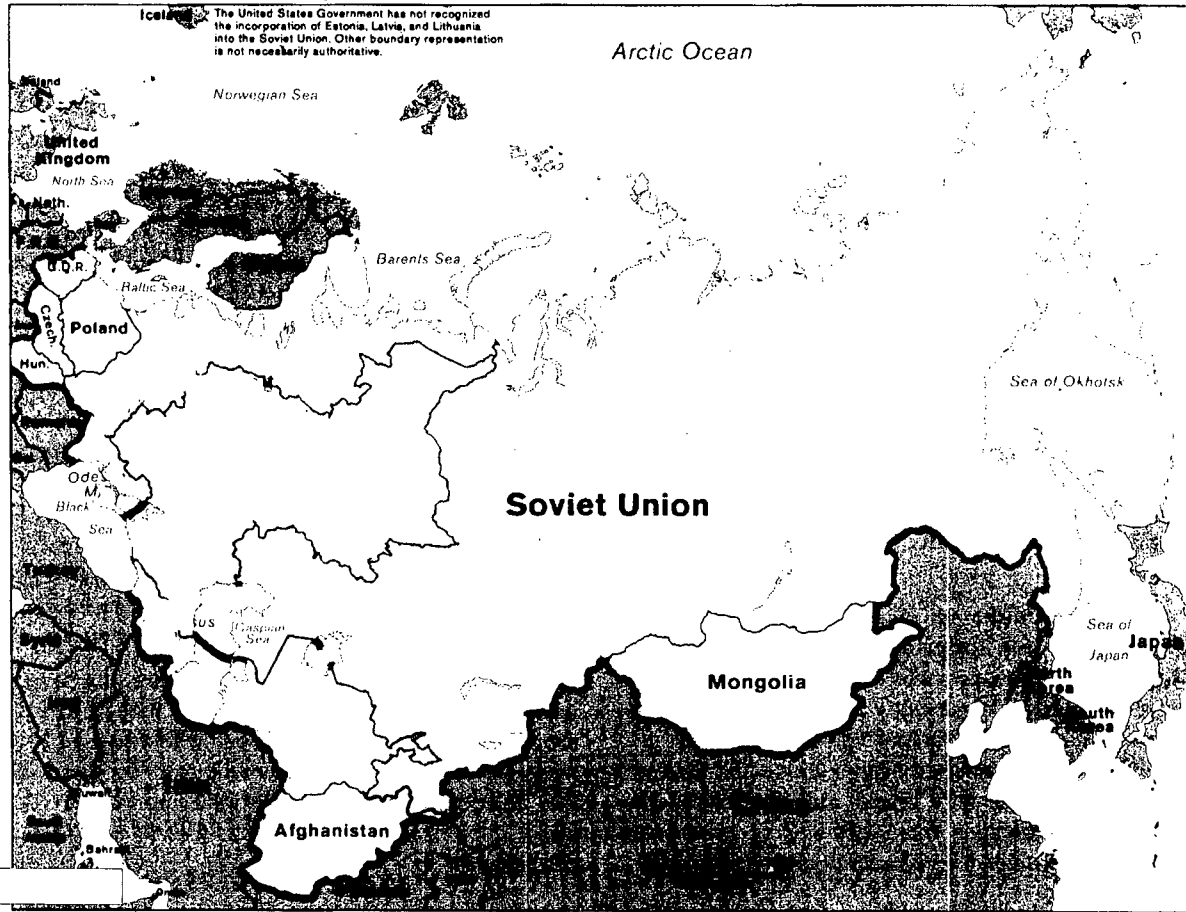
20. **Deployment.** Ground units could be employed in any geographic region as required, but units garrisoned along the periphery of the USSR most likely would be employed in areas near their peacetime locations. Consequently, there are structural differences between elements of the force due to specific conditions in a geographic region and the capability of potential opponents. The heaviest concentrations of active units are opposite NATO in the groups of forces and the western border military districts of the USSR and opposite China (see figure I-1).

21. **Operational Concepts and Organization.** Important changes in the operational concepts and structural organization of Soviet ground maneuver formations have been observed since the late 1970s. The reemergence of a concept for employing a tailored, high-speed exploitation force at army and front level is particularly significant. This force—called an operational maneuver group (OMG)—would be organized to conduct high-speed exploitation operations after enemy forward defenses had been ruptured. It would move deep into the enemy rear area, conduct large raids,<sup>3</sup> and seize critical objectives, possibly before second-echelon formations were committed. The increased emphasis on rapid, deep operations by operational maneuver groups, acting with considerable autonomy from the main attacking force, probably is related to recent changes in the organizational structure of maneuver divisions and in the establishment of army aviation.

22. Organizational changes in the structure of tank and motorized rifle divisions are based on concepts that were tested in two experimental divisions beginning in 1977. The principal changes were the addition of an artillery battalion to each tank regiment, the expansion of motorized rifle companies to battalions in

<sup>3</sup> A Soviet "raid" may be conducted by a force as large as an army. Typically the raid is executed along a previously designated route of march against preplanned objectives in the enemy's rear area, although the raiding force may also engage targets of opportunity. The raiding force can be expected to conduct operations separate from the main body for prolonged periods of time. Additionally it is almost never expected to rejoin the main forces until the main forces have advanced to the depth at which the separate raiding force is operating.

**Figure I-1**  
**Peacetime Regional Deployment of Active Soviet Divisions**



tank regiments of tank divisions, and the establishment of a helicopter squadron (instead of detachment) in high-strength divisions. More than 40 percent of all active tank and motorized rifle divisions—including all divisions in the groups of forces—are reorganizing in this manner.

23. The development of army aviation has occurred concurrently with the division reorganization. The Soviets have assigned attack helicopter regiments directly and permanently—rather than on an “as needed” basis as in the past—to some tank and combined-arms armies. In addition to the attack helicopter regiment, the aviation component of an army includes a general purpose helicopter squadron, a reconnaissance drone squadron, and appropriate maintenance,

staff, and communications support. A staff coordination channel is maintained with the deputy commander for air forces of the military district or group of forces.

24. A third major development has been the establishment of air assault brigades subordinate to the front commander and independent air assault battalions subordinate to army commanders in selected areas. These units provide the front and army commanders an independent means to conduct limited air assault operations, thereby reducing their dependence on General Staff-controlled airborne assets.

25. **Capabilities.** As a result of restructuring and weapon modernization, Soviet forces are more capable

of conducting high-speed combined-arms operations involving nuclear, chemical, and conventional weapons. The Soviet tank regiment is being developed into a combined-arms team (tank, motorized rifle, and artillery). It promises to be as flexible in its employment as the motorized rifle regiment, while remaining tasked and configured for fast-moving exploitation operations. Hence, the capability of the tank regiment and tank division to conduct independent operations has been greatly enhanced. The addition of large-caliber, self-propelled howitzers and long-range multiple rocket launchers to the artillery available to army and front commanders greatly enhances their capability to provide area and counterbattery fire support to subordinate divisions as they maneuver at depth in the enemy's rear. Moreover, Soviet tactical surface-to-air missile (SAM) and antiaircraft (AA) gun systems provide a versatile and redundant air defense capability, covering targets from high to very low altitudes while keeping pace with rapidly advancing ground formations. [ ]

26. The establishment of army aviation has given ground maneuver formations a vertical dimension. The helicopter now provides combined-arms and tank armies with a highly maneuverable, versatile platform for reconnaissance, command and control, troop lift, and fire support. General purpose and attack helicopter units can move with armies and divisions at the high rates of advance they will seek to achieve in conducting combined-arms operations in depth. [ ]

27. The establishment of air assault brigades to support front and army operations has given the front commander large, flexible, well-armed formations that can be employed against targets in the enemy rear. Deployed as a unit or as subunits, the brigade can seize, disrupt, or destroy nuclear weapons, airfields, command, control, communications, and logistic facilities, and key terrain such as river crossing sites and road junctions, and thereby help shift the focus of the battle away from the forward line of troops. If successful, the brigade's operations should facilitate rapid penetration by first-echelon Soviet formations through the enemy's forward defensive zone, and directly support the high-speed movement of large exploitation forces—particularly OMCs—advancing into the depths of the enemy's defenses. [ ]

28. Both tank and motorized rifle divisions will be more capable of independent operations within the front offensive concept, although each will remain optimized for specific roles. Fronts will be supported by long-range area and counterbattery artillery weapons and accompanied by weapon systems mounted on mobile armored vehicles and attack helicopters. [ ]

29. To assure support of such operations, the Soviets have also undertaken a reorganization of their logistic support units. These units are being reorganized into "materiel support" units to provide commanders with the logistic capability and flexibility to support the rapid, deep operations envisaged in their operational concepts. [ ]

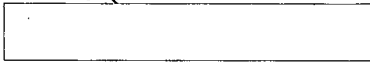


Table II-1  
Readiness of Soviet Divisions

"Ready" Divisions

(About 40 percent of all active and inactive divisions)

*Full-strength ready*

- 40 divisions
- 95 percent or more of wartime authorized strength
- Full training program
- All authorized equipment present
- Modern equipment
- Includes all divisions in the groups of forces
- Includes all airborne divisions except one training division

*Reduced-strength ready*

- 42 divisions
- Grouped between 55 percent and 85 percent of wartime authorized strength
- All authorized equipment present
- One or two such divisions generally found in most military districts
- We have identified two distinct manning variations:
  - *Reduced-strength ready I*
    - Grouped between 70 percent and 85 percent of wartime strength
    - Modified full training program
    - Modern equipment
  - *Reduced-strength ready II*
    - Grouped from 55 percent to 70 percent of wartime strength
    - Modified full training program
    - Mostly modern equipment

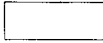
"Not Ready" Divisions

*Cadre*

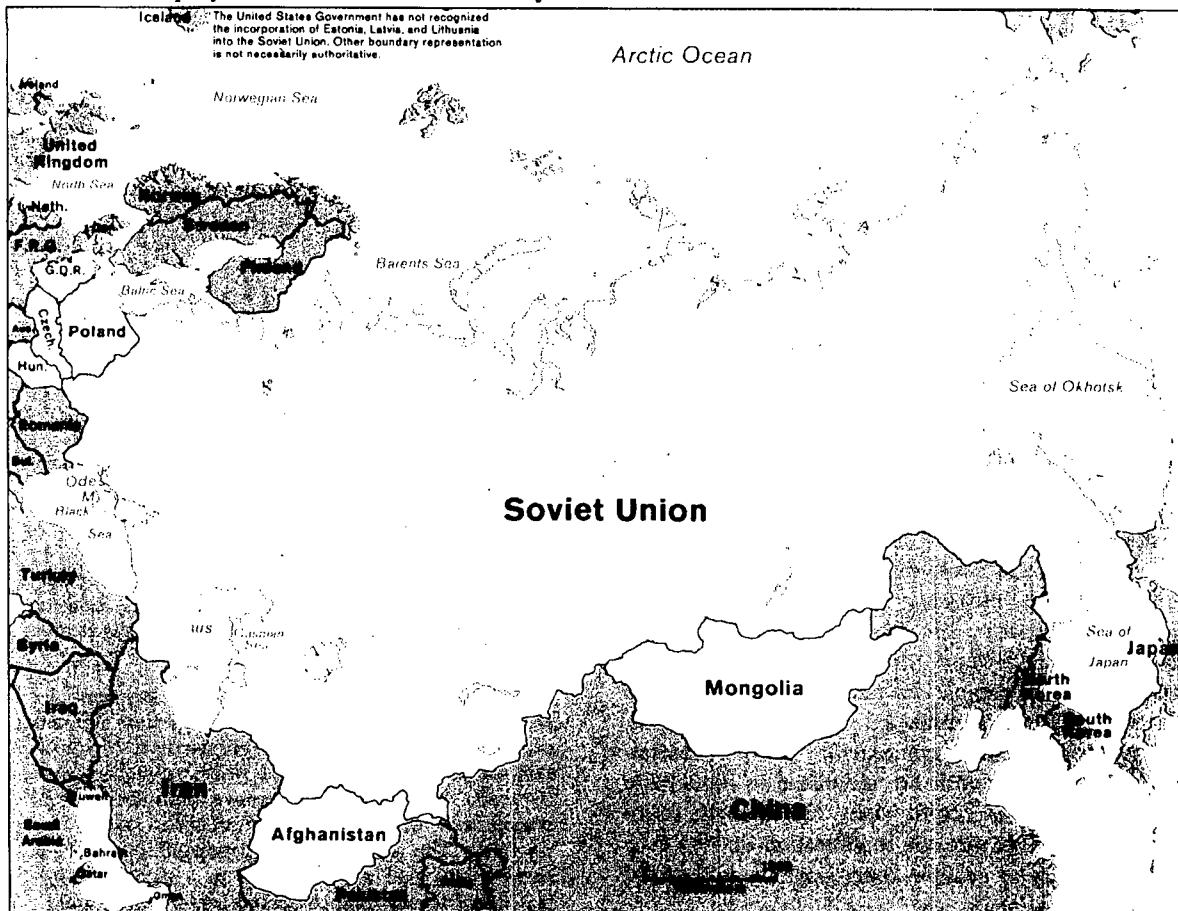
- 103 divisions
- Grouped between 5 percent and 40 percent of wartime authorized strength
- Found only within the USSR
- We have identified two distinct manning variations:
  - *High-strength cadre*
    - Grouped between 25 percent and 40 percent of wartime strength
    - Limited training—generally not above battalion level
    - Older equipment
    - Most major items of combat equipment present
    - Some shortages of equipment (trucks, APCs)
  - *Low-strength cadre*
    - Grouped from 5 percent to 25 percent of wartime strength
    - Mostly motorized rifle divisions
    - Limited training—rarely above company level
    - Older equipment
    - Most major items of combat equipment present
    - Some shortages of equipment (trucks, APCs)

*Mobilization base (inactive divisions)*

- 25 divisions
- No permanently assigned staff in peacetime
- No regular training program
- Substantial equipment shortfalls
- Equipment configured in unit sets
- Usually colocated with active divisions



**Figure II-1  
Peacetime Deployment of Soviet Divisions by Readiness Level**



	Full-Strength Ready Divisions	Reduced-Strength Ready Divisions		Cadre Divisions		Mobilization Base Divisions
		I	II	High-Strength	Low-Strength	
<b>Total</b>	<b>40</b>	<b>22</b>	<b>20</b>	<b>51</b>	<b>52</b>	<b>25</b>
<b>Eastern Europe</b>						
East Germany (G.D.R.)	19					
Poland	2					
Czechoslovakia	5					
Hungary	4					
<b>Soviet Military Districts</b>						
Leningrad	1	3		2	3	2
Baltic	1	2	1	2	5	1
Belorussian		2		8	1	2
Carpathian		3		2	6	2
Odessa	1			2	6	1
Ural				3		3
Moscow	1	1	1	1	4	2
Kiev			1	4	5	4
North Caucasus				3	5	1
Volga				3		
Transcaucasus	1		4	2	5	1
Turkestan				4	1	
Central Asian		1	2	2	2	1
Siberian				5		3
Transbaikal		3	1	2	4	2
Far East		6	7	6	5	
<b>Non-Soviet Asia</b>						
Afghanistan	4					
Mongolia	1	1	3			

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strength. Internal manning patterns within these divisions also vary. Some divisions typically maintain one or more maneuver regiments and other selected units (such as the surface-to-air missile regiment and the FROG battalion) at or near wartime authorized strength, while other elements are manned at much lower levels. In other divisions one battalion in each maneuver regiment may be manned at or near wartime strength, while the other battalions are manned at reduced or cadre strength.

7. **Cadre Divisions.** We estimate that 103 Soviet divisions—well over 50 percent of all active divisions—are maintained in a cadre (*kadrirovannaya*) status. We have identified two general manning variations: between 25 and 40 percent of wartime strength and from 5 to 25 percent of wartime strength. Manning in a cadre motorized rifle division usually varies from 5 to 25 percent of wartime strength. Cadre tank divisions are often manned between 25 and 40 percent, because of greater maintenance and crew requirements for tanks. All command positions at company level and above are filled, and sufficient enlisted personnel are available to maintain equipment in storage. Peacetime manning in cadre divisions generally limits training to the company or—at best—battalion level unless reservists are mobilized to participate in field training exercises. Many low-strength cadre divisions would require the mobilization of 10,000 or more reservists to achieve their wartime authorized manning levels.

8. **Mobilization Base Divisions.** We have identified 25 mobilization base divisions, consisting of division-configured equipment sets maintained in storage. They are unmanned in peacetime but could be converted to active divisions by mobilizing reservists.

9. **Nondivisional Units.** Nondivisional army and front support units are also manned at varying strength levels in peacetime. Surface-to-air missile (SA-4) brigades and Scud and Scaleboard brigades are examples of nondivisional units manned at or near full strength. These units are assigned important missions, employ complex equipment, and require intensive training.



Nondivisional signal units (for example, army-level or military-district-level signal regiments/brigades) are often manned at reduced strength. Army- and corps-level units that are often manned in cadre status include artillery brigades, multiple rocket launcher brigades, engineer and pontoon bridge regiments, and signal and chemical defense battalions

#### Unit Alert System

10. In addition to a unit's readiness classification, which involves broad resource allocation decisions, units are maintained in one of four formal alert stages which determine their peacetime activities (see inset). These alert stages are roughly equivalent to the US Defensive Readiness Conditions (DEFCONs).

#### Soviet Alert Stages

**Constant combat readiness:** the normal peacetime readiness status of the Soviet armed forces. Routine training and activity take place. Leaves and passes may be granted at commanders' discretion.

**Increased combat readiness:** unit personnel are recalled from leave or TDY, and division subunits conducting field training return to garrison. Mobilization and contingency plans are reviewed and updated by staffs. Unit personnel remove equipment from storage and begin to prepare reception points for reservists. The division's field command post (CP) is partially manned and deployed to a dispersal area. Staffing of the garrison command center is increased.

**Threat-of-war combat readiness:** units deploy from garrison to dispersal areas. The control of the division is transferred from the garrison command center to the field CP. Selected reservists with specialized skills may join the unit.

**Full combat readiness:** full mobilization takes place and reservists join their units. Equipment mobilized for the unit also arrives. Units establish their wartime command, control, and communications structure. At this point, the alert, dispersal, and mobilization process is complete.

11. Soviet units in peacetime are normally maintained at "constant combat readiness." The activity which routinely occurs within a unit during this alert stage will, however, vary substantially depending on the unit's overall readiness status. For example, a "ready" Soviet division in Eastern Europe carries out



**Figure II-2  
Comparison of Readiness Categories for Soviet Divisions**

	US/NATO Description		Actual Patterns Observed	
	Description and Percentage of Wartime Authorized Strength	Number of Divisions	Description and Percentage of Wartime Authorized Strength	Number of Divisions
"Ready"	Category I/A 75-100%	45	[REDACTED]	[REDACTED]
	Category II/B 50-75%	37		
"Not Ready"	Category III/C Less than 50%	103	[REDACTED]	[REDACTED]
	Mobilization base	25		
		Total 210		Total 210

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an extensive program of unit training while "not ready" cadre divisions within the USSR spend much of their time maintaining equipment and rarely train above battalion level [REDACTED]

12. The four stages of alert establish an orderly, manageable transition from a normal peacetime posture (constant combat readiness) to full mobilization and preparation for battle (full combat readiness), and the Soviets have provided commanders with guidelines which outline the steps and procedures units of varying levels of preparedness must accomplish to progress through the four stages. The alert stages also allow flexibility in managing the preparation of forces for combat. Should international tension rise or regional disturbances occur, the Soviets can selectively alter the readiness status of an appropriate portion of their forces without initiating disruptive and expensive forcewide mobilization [REDACTED]

**US Readiness System**

13. The US Department of Defense defines combat readiness (or operational readiness) as "the capability of a unit/formation, ship, weapon system, or equipment to perform the missions or functions for which it is organized or designed." This concept of readiness incorporates both the availability of qualified personnel to perform assigned missions and the availability of equipment in such condition to serve the function for which designed [REDACTED]

14. The US Army's readiness objective is to provide units capable of performing their missions in support of operational requirements. To conserve resources, only those units required early in support of contingency plans are normally maintained at the highest level of readiness. Other units are assigned readiness goals according to the resources provided. These

resources include personnel, equipment, funds, time, and facilities for training and maintaining equipment.

### Comparison of Soviet and US Readiness Systems

15. Both the Soviet and US readiness classification systems<sup>2</sup> divide units into "ready" and "not ready"

<sup>2</sup> It is difficult to compare the Soviet and US unit readiness classification systems directly, since the Soviet system appears to combine standards found in the US Army Authorization Documents System (TAADS), the Authorized Level of Organization (ALO) system, and the US unit rating status system. See tables II-2 and II-3 for a comparison of Soviet readiness categories and alert stages with the US "ALO" and unit "C" rating systems.

status. Generally, the United States has more demanding manpower requirements for its "ready" units. The Soviets, however, require full equipment sets in all "ready" units, while marginally ready US units can lack up to about one-fourth of their equipment. In cases where Soviet and US operational readiness requirements for equipment in ready units can be compared, we have found them roughly similar.

16. There is a major difference in approach, however, in the way the Soviets and the United States rate the contribution of training to overall readiness. The Soviets use a six-month training cycle, which is progressive and is followed by all members of a unit. Training builds steadily from basic and individual skill

Table II-2

#### US Unit Readiness Classification System<sup>a</sup>

		US "C" Rating <sup>b</sup>	Nearest Soviet Equivalent
C-1	Personnel	95 percent of full MTOE <sup>c</sup>	Full-strength ready units; all "ready" units meet equipment requirements
	MOS	86 percent personnel qualified	
	Senior grade	86 percent E-5 and above	
	Equipment on hand	90 percent of reportable lines at or above 90 percent fill	
	Equipment status	90 percent or above operational rate	
	Training	0-2 weeks battalion or above company	
C-2	Personnel	85-95 percent of full MTOE	Some reduced-strength ready I units
	MOS	77 percent	
	Senior grade	77 percent	
	Equipment on hand	90 percent of reportable lines at or above 80 percent fill	
	Equipment status	80 percent or above	
	Training	3-4 weeks battalion or above; 2 weeks company or battery	
C-3	Personnel	75-85 percent of full MTOE	Most reduced-strength ready I units
	MOS	68 percent	
	Senior grade	68 percent	
	Equipment on hand	90 percent of reportable lines at or above 65 percent fill	
	Equipment status	70 percent or above	
	Training	5-6 weeks battalion or above; 3-4 weeks company	
C-4	Personnel	75 percent or below full MTOE	Some reduced-strength ready II units and all "not ready" units
	MOS	68 percent or below	
	Senior grade	68 percent or below	
	Equipment on hand	90 percent of reportable lines below 65 percent fill	
	Equipment status	Less than 70 percent	
	Training	7 weeks plus for battalion; 5 weeks plus for company	

<sup>a</sup> US data are drawn from "Rating Criteria," Appendix F, AR 220-1.  
<sup>b</sup> "C" rating criteria include manning, MOS (military occupational specialty), fill, equipment on hand, equipment status, and training status.

<sup>c</sup> MTOE = modified table of organization and equipment.

Table II-3

US and Soviet Unit Readiness  
Classification Systems

US ALO <sup>a</sup>	US Manning (percent)	Nearest Soviet Equivalent
1	100	Full-strength ready (95-100 percent manning)
2	90	No Soviet equivalent
3	80	Reduced-strength ready I (70-85 percent manning)
4	70	Reduced-strength ready I (70-85 percent manning)
5	60	Reduced-strength ready II (55-70 percent manning)
6	50	No Soviet equivalent
7	40	High-strength cadre (25-40 percent manning)
8	30	High-strength cadre (25-40 percent manning)
9	20	Low-strength cadre (5-25 percent manning)
0	10	Low-strength cadre (5-25 percent manning)
Z	0	Mobilization base (inactive)

<sup>a</sup> Authorized level of organization (refers to manning only). Refer to AR 220-1.

training in the first two months of the six-month cycle, and then proceeds to platoon, company, and battalion training, and regimental or divisional exercises. During peacetime, training progress is monitored monthly. Soviet training status is then judged against training goals deemed appropriate for a unit on the basis of its training cycle. By this rating method, battalions in a Soviet division that are three months into the six-month cycle should be mastering battalion-level combined-arms operations. Soviet battalions are tested at this point to determine if they are "on schedule" in their training. If so, such battalions would be rated as satisfactory in the Soviet system, even if they still needed two months to complete training at the regimental and division level. The United States, on the other hand, would rate such units as "not ready" because the battalions still need more than seven weeks to complete divisional training.

### III. SOVIET AND US READINESS REPORTING AND MONITORING

#### General

1. All military forces must devise methods to ensure that expected preparedness levels are maintained at the unit level. Unit status reporting permits units to document their preparedness levels periodically and to inform national command authorities of existing unit capabilities and conditions. Unit status is usually reported in terms of uniform forcewide standards designed to lend consistency and comparability to data derived from many units at varying resource and preparedness levels. Readiness management systems must also provide higher level authorities with inspection mechanisms to verify the accuracy of unit status reporting and to ascertain the actual preparedness of units. When properly conceived and implemented, a readiness management system should provide force planners with timely data on resource allocation and utilization, force operators with accurate assessments of unit capabilities for mission assignments, and unit commanders with guidance in meeting the preparedness requirements expected. [ ]

2. Both the Soviets and the United States make unit readiness a command responsibility. Soviet commanders, however, delegate most equipment readiness responsibility to technical officers. In the United States, the unit readiness status report, compiled monthly, is the basic readiness reporting document. This document integrates training, manpower, and equipment factors in arriving at an overall estimate of unit readiness. Furthermore, subjective command input is a crucial element of readiness reporting in the US system. [ ]

3. While we know of no single Soviet readiness reporting document equivalent to the US unit status report, divisions do prepare a monthly readiness report. It is prepared at regimental level and summarizes training accomplishments and conditions bearing on the "internal order" of units. In addition to this report, the Soviets require separate monthly reports from regiments and separate battalions on equipment and manpower status. These reports are consolidated at division and sent to military district and group au-

thorities. Although we have no evidence, it is likely that regional summary data are forwarded to Moscow. [ ]

4. Nor is there evidence that Soviet commanders are required—or permitted—to provide subjective evaluations of unit readiness. In line with their avowed scientific approach, the Soviets have devised measurable norms for all aspects of readiness. Subjective elements of readiness such as morale are evaluated in a monthly report specifying all instances of insubordination, crime, or other forms of deviance within units. Training is likewise narrowly evaluated against objective performance norms for all tasks and subtasks comprising an individual or collective skill. [ ]

5. Both the Soviets and the United States have active inspecting and monitoring programs that progress from informal unit audits to formal inspections by professional inspectorates at national level. On the whole, both national inspection programs are roughly equivalent in concept. [ ]

#### Soviet Readiness Reporting and Monitoring

6. Readiness in Soviet ground units is measured against quantitative and qualitative norms for equipment, training, and manpower. The Soviets have a comprehensive, methodical reporting program and an active, continuous inspection program designed to ensure that units meet the standards set for them. Unit readiness is a command responsibility. In practice, commanders directly monitor manpower and training status, while delegating responsibility for equipment preparedness to service chiefs who are functional specialists in areas such as armor, engineering, aviation, or communications. Reporting responsibility is fixed, in the first instance, at the regiment, separate battalion, or nondivisional unit level. Commanders are graded in part on the ability of their units to meet standards published in manning and equipment tables, training manuals, and service regulations. [ ]

7. **Manpower Reporting.** Manpower availability is monitored daily and a variety of formal, periodic

reports are used to inform division and higher level headquarters of unit status. For example, detailed, often hand-kept records, originating at platoon level, record personnel availability on a daily basis. This information, compiled in a "short report" (roughly equivalent to a US morning report), is sent through battalion and consolidated at regimental headquarters. Soviet regulations require battalion commanders to notify regimental chiefs of staff daily on manpower availability. The Soviets also prepare a detailed monthly strength report, consolidated at division level, for military district or group of force headquarters.

8. **Training Reporting.** Training status is monitored by unit commanders aided by technical specialists. Established training standards and manuals provide guidance for programing training. The Soviets keep continuous platoon-level training records during each phase of training. Each soldier, squad, platoon, and company is graded periodically on the ability to meet specified standards measured in terms of speed and accuracy as training progresses. In addition, commanders at battalion and above conduct informal evaluations for their own use every four to six weeks. The results are used to assist these commanders in formulating monthly training schedules.

9. In the groups of forces, training records are meticulously kept on virtually a daily, subject-by-subject basis. Hand-kept records can contain more than 200 pages and more than 4,000 individual and small unit training grades. The Soviets encourage "socialist competition," both individual and collective, to bolster training scores. Scores are published periodically—daily for individuals, weekly for companies, and monthly for battalions. Outstanding grades result in passes, promotions, and occasionally small monetary awards.

10. In the interior of the USSR, however, training status is less closely monitored. Commanders take short cuts or permit cheating in order to ensure that training norms are met. Furthermore, there is evidence that commanders in both "ready" and "not ready" units in the Soviet Union divert military personnel to local labor projects. Training records are then falsified to indicate that the training was completed and that passing grades were obtained. One source noted that inspectors in his military district routinely asked troops at random if

they had received all the training that their commanders reported conducting. We cannot confidently estimate how pervasive this practice is, but the evidence of falsification of training records casts some doubt on the accuracy of training status reporting within the USSR.

11. **Equipment Reporting.** The Soviets document the technical condition of their equipment using vehicle logs, monthly and annual usage charts, and daily or weekly readiness certification. Logs accompany all equipment and are kept current by operators. They are used to record data on mileage, operating hours, and maintenance. Equipment log data are then checked against published usage standards and expected service life norms. This permits the Soviets to calculate "coefficients of technical readiness," which are mathematical statements of the probability that an equipment item will operate as intended without breakdown. As equipment acquires more use, its probable reliability decreases and the item is successively reclassified through five usage categories (see table III-1).

Table III-1

**Soviet Equipment Condition Categories**

- I. **Combat ready:** New vehicles, having traveled less than 3,000 km or 100 motor hours; serviceable, fit for use.
- II. **Probable minor repair:** Vehicles fit for assigned use, fully serviceable. Can include vehicles that have undergone medium or capital repair and are technically fit.
- III. **Intermediate repair:** Vehicles requiring medium repair—rebuilding of one or several assemblies.
- IV. **Major overhaul:** Vehicles requiring capital repair—complete overhaul and rebuilding.
- V. **Unfit for combat:** Vehicles that cannot be renovated and must be discarded.

12. Commanders of both "ready" and "not ready" units are required to keep certain percentages of their inventory in each equipment condition category, with a majority of unit equipment in either category I or category II. Since 60 to 85 percent of Soviet equipment is conserved, rather than routinely used, it is possible to maintain most unit equipment in a low-usage, highly prepared condition. Although we have little direct evidence, sources report that their units maintain actual equipment operational readiness rates

ranging from about 75 to more than 95 percent. Monthly and annual usage charts are compiled—probably at battalion and regiment—as management tools to permit commanders to monitor the status of their equipment against acceptable usage norms and to plan future use and equipment replacement accordingly. [ ]

13. The Soviets also monitor the availability of equipment. In at least “ready” units, sources have reported that the availability of equipment in normal use is certified daily or weekly during dedicated maintenance days. Detailed trip tickets are used to document the physical presence of equipment, and unit clerks make daily checks with technical officers to determine the quantity of authorized equipment actually on hand with the unit. [ ]

14. The availability of most Soviet equipment, which is kept in storage sheds and not normally used, is monitored by unit officers each day. Storage sheds must be officially sealed each evening by the garrison guard and this fact reported to unit duty officers. Equipment within the sealed sheds is then considered available and operationally ready. In practice, however, sheds are often only superficially checked or not checked at all. [ ] report minor pilfering from stored vehicles because of chronic spare parts shortages in units. The scope of such borrowing is difficult to estimate, but most sources agree that major assemblies are usually left intact and stealing is confined to parts such as fuel pumps and batteries. Such pilfering, however, does degrade equipment preparedness and reportedly is routinely concealed in unit status reporting. [ ]

### Soviet Readiness Inspections

15. The Soviets attempt to verify the accuracy of their readiness reporting through an active evaluation and inspection program. While the inspection program is apparently intended to be uniform throughout the force structure, there are regional variations in the frequency and competence of inspections. The most demanding inspections occur in the groups of forces and selected border military districts. [ ]

16. The Soviets have a hierarchy of readiness evaluations and inspections, differing in frequency, purpose, and stringency. Perhaps the most frequent readiness checks are partial inspections restricted to

assessing unit readiness in one or a few areas. Many of these inspections are little more than internal unit audits and are not “for the record.” To assure equipment availability and reliability, inspections are regularly performed at set periods. For example, according to one source from a “ready” division, Soviet regimental commanders are required to check 5 percent of unit equipment in use monthly; battalion commanders, 50 percent quarterly; and company commanders, 100 percent biweekly. Other sources report less demanding schedules. In addition, battalion and regimental officers conduct unannounced random inspections, which can involve up to one-fourth of a unit’s equipment inventory. Training is likewise evaluated by battalion and regimental commanders after platoon, company, and battalion training is completed. The purpose of these inspections is to monitor specific aspects of military life or organization that affect readiness and to identify and correct deficiencies before serious readiness consequences occur. [ ]

17. Certain formal partial inspections are conducted, however, by commissions from army, military district, or higher level. Although we lack firm data on frequency, some sources report annual specialized inspections in areas ranging from engineering to medical procedures. Such inspections can be demanding with serious repercussions for failure. For example, alert readiness inspections, in which units are required to clear their garrison within prescribed time limits with specified percentages of equipment and personnel, are held by military district authorities and occasionally by Moscow-level inspectors. Failure to pass this readiness inspection has resulted in loss of command. [ ]

18. Unit readiness is most thoroughly tested in end-of-cycle readiness tests and in formal general readiness inspections. Both of these forms of testing integrate equipment, training, and manning status into a single overall unit readiness evaluation. The end-of-training-cycle testing is not as exhaustive as the general readiness inspection, which covers subjects ranging from hygiene to unit tactics. Furthermore, while a general readiness inspection can be conducted by authorities above division, end-of-cycle tests are the normal divisional form of inspection. [ ]

19. All “ready” units and at least the cadres of most “not ready” units receive an end-of-cycle check at least annually. In fact, units in the groups of forces are

tested semiannually as are most units in the western and far eastern military districts. These tests begin with a unit alert and proceed to individual military specialty and small-unit firing and tactical tests in the field, which last about five days. The results of these tests are calculated using complex scoring rules that render an overall unit readiness status grade, which can range from 2 (unsatisfactory, not ready) to 5 (ready, outstanding)

20. The general readiness inspection is the most thorough and demanding unit readiness test. It is given by professional inspection commissions from the Ministry of Defense or military district headquarters. As a matter of policy, divisions and brigades are to receive a Moscow-level general readiness inspection on average once in five years. There is some evidence that military districts also inspect major units once in five years. In practice, however, units in the groups of forces may receive general readiness inspections by either Moscow or group authorities every second or third year, while interior units seem to adhere to the less frequent schedule of once in five years. General readiness inspections, which may take one week or more cover every aspect of military life and activity and are critical to the career success of unit commanders.

21. General readiness inspections concentrate on performance in basic readiness subjects. These vary somewhat by unit type, but invariably include driving, weapons firing, political training, protection against weapons of mass destruction, technical specialty skills, and unit tactics. Standard performance norms are published for the required tasks within each subject, and readiness is evaluated against these standards. A complicated scoring system reportedly gives disproportionate weight to readiness scores obtained by combat maneuver and missile units.

22. The Soviet readiness reporting and monitoring system rarely works exactly as designed. In the groups of forces and border units, obsession with readiness as defined in objective standards leads to intensive but stereotyped and often tactically unrealistic training designed to "beat the norm." Sources report failure to take safety precautions, prepare defensive positions, or use camouflage as typical ways to exceed time standards. In a desire to report favorable results, unit readiness reporting is often exaggerated and occasionally falsified. Even in the groups of forces, for exam-

ple, where readiness records are meticulously kept, the most prevalent grade appears to be a 4, and one knowledgeable source stated that "no one ever flunks" a readiness test in the groups. Special rehearsals often precede inspections, and occasionally crews precalculate firing data based on foreknowledge of inspection tests. Conversely, however, very few 5's or 2's are reported from the groups of forces. Despite these flaws, both general readiness inspections and comprehensive checks are taken seriously, are thorough, and appear to be competently and frequently conducted in the groups of forces.

23. Reporting on the implementation of the readiness monitoring system within the USSR indicates that less emphasis is placed on readiness than in the groups of forces. Since most units are in cadre status, or "not ready" by Soviet definition, they must be fully mobilized at least once in five years at the division level to conduct a reliable general readiness inspection. Several weeks of reservist training, narrowly geared to only those drills to be tested, typically precedes unit general readiness inspections within the USSR. Cheating frequently occurs as commanders create composite "test" crews to represent the entire unit in tactical tests. Equipment often is superficially checked, and spare-part shortages reportedly are ignored.

24. During "off" years, when low-strength units are not subjected to general readiness inspections, only the cadres are inspected during "comprehensive" readiness checks. At that time, ad hoc inspection commissions are drawn from unit officers who cross-inspect one another's units. This leads to a system referred to as "*tu mnye a ya tebye* (you scratch my back and I'll scratch yours)" and reportedly results in grossly inflated readiness results. The only notable exception to this generally lax pattern of readiness reporting and inspection in the interior is found with air defense and nuclear missile units, where high emphasis is placed on accurate readiness reporting and competent inspections are administered by professional inspectors.

25. The Soviet readiness reporting and inspection system does provide a systematic, detailed, and theoretically uniform—if inflexible and burdensome—approach to readiness monitoring. When conscientiously applied, the system can provide commanders with an invaluable tool with which to manage resources in order to meet required readiness standards.

In the groups of forces, readiness data appear reasonably accurate for those factors subject to readiness reporting. Inspections are stringent and competently administered, although grades are somewhat inflated and subtle forms of cheating guarantee favorable results. The Soviets appear to have no way, however, to monitor the intangible aspects of readiness such as morale or leadership qualities, which elude their objective reporting formats.

26. Within most of the interior, however, unit readiness is far more dependent on individual command emphasis than on any formal readiness monitoring system. Soviet readiness reports are often greatly inflated or falsified and inspections are frequently lax, perfunctory, or circumvented. It is not clear to what extent the Soviet General Staff discounts readiness reports accordingly. However, the Soviet readiness system appears incapable of accurately monitoring the variation in unit readiness reported in the interior, and thus national-level military authorities may have only an approximate picture of unit readiness in the majority of ground units.

#### US Army Readiness Reporting and Monitoring

27. The US Army unit commander is responsible for maintaining the highest level of unit training proficiency and equipment serviceability consistent with assigned mission and resources provided; assuring that readiness ratings reflect actual unit conditions; and redistributing resources to prevent or correct degradation in readiness.

28. Readiness is reported to higher commands monthly using the "unit status report." This report

[Redacted]

assists in the allocation of resources but does not contain all information needed to manage resources or assess unit readiness. These reports also assist in the assessment of total force readiness but are not designed to contain all information necessary for a comprehensive evaluation of the broader concepts of readiness.

29. The unit status report monitors personnel, equipment, and training. Unit ratings for these factors are computed and recorded according to detailed instructions. In addition, each commander determines an overall rating that best describes the unit's ability to accomplish the mission for which it was organized. The level of readiness in any area is indicated by a numerical rating. A rating of 1 indicates the highest level of readiness. A rating of 4 in any area indicates that a unit is incapable of fully performing its assigned MTOE missions (that is, according to the Modified Tables of Organization and Equipment), unless otherwise explained by the commander.

30. Unit status is considered the end product of managerial effort at all levels of the Army. Therefore, attributing readiness conditions solely to the leadership and managerial efforts of reporting unit commanders ignores limitations that exist within the system. Unit reports are designed as status reports and management tools and are not intended to evaluate commanders. No unit is expected to attain an overall status that exceeds its authorized level of organization. The goal is to achieve a rating equal to ALO in personnel and equipment and to train to the highest level possible with the resources available to the unit. Terms such as "ready," "not ready," "incapable of performing TOE mission," and "deployable," as used in overall rating definitions have meaning for war planners, but are meaningless as descriptors of unit achievement. When units achieve a rating equal to ALO, they are as ready as the Department of the Army expects them to be.



## IV. DETERMINANTS OF READINESS

1. This chapter examines a number of factors that impact on readiness, including manpower, the mobilization system, training, equipment, maintenance, and sustainability. [ ]

### Manpower

2. Manpower, per se, should not be a constraining factor on overall Soviet force readiness. The Soviets have a large manpower pool upon which to draw in fleshing out their force structure for wartime and a well-organized and efficient mobilization system. Soviet soldiers generally are well trained in basic military skills, and officers are well schooled in operational procedures and planning. It is likely that variations in leadership ability would be found throughout the ground forces, but it is difficult to predict whether leadership deficiencies would be more prevalent in the less ready force elements. Morale problems exist in peacetime, but calculating their overall impact on readiness or performance in combat is problematic. Nonetheless, the nationwide problem of alcoholism as well as evidence of morale and discipline problems in units in Afghanistan are factors that the Soviets must take into account in their own readiness assessments. [ ]

3. The size and composition of the Soviet armed forces are shaped to a large extent by the 1967 Universal Military Service Law, which determines or influences the size of the military manpower base, the reserve system, the mechanism for conscription, and the callup of reservists and equipment during mobilization. The 1967 law requires military service—active and reserve—by virtually all physically and mentally fit Soviet males between the ages of 18 and 50. Consequently, the Soviet military manpower pool numbers well over 50 million. [ ]

4. **Administrative Apparatus.** The Soviet manpower and mobilization support system is enormous and complex. At the heart of the system is the network of some 4,100 *voenkamaty*, or military commissariats, which in one form or other, are found in nearly all villages, towns, and cities of the Soviet Union. The

*voenkamat* has no counterpart in the United States. Its functions combine those of US Selective Service draft boards, Armed Forces Reserve Centers, and the Veterans Administration. [ ]

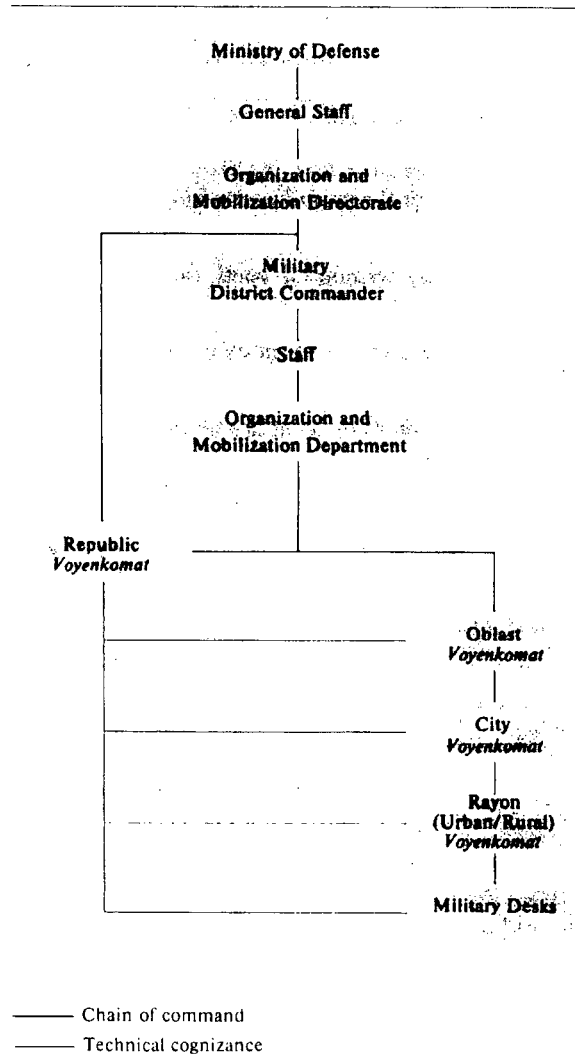
5. Since their inception in 1918, the duties and responsibilities of the *voenkamaty* have grown significantly. Their most important responsibilities are:

- Premilitary training of youth (usually from age 16).
- Registration for conscription of all males at ages 16 or 17.
- Conscription of males at age 18 (unless deferred).
- Approval or disapproval of all deferments.
- Selection, records maintenance, and annual inspection of all civilian transportation assets designated for mobilization.
- Discharge of conscripts into the reserve.
- Maintenance of reservist records and allocation of reservists to units by specialty.
- Reservist training.
- Alert, assembly, and delivery of reservists to units during mobilization. [ ]

6. Military commissariats are found in every political/administrative subdivision in the USSR. Within the military chain of command they are under the control of the local military district commander through the Organization and Mobilization Department of the MD staff. Ultimately, command of the *voenkamaty* rests in the Organization and Mobilization Directorate of the Soviet General Staff (see figure IV-1). Administratively, the commissariats are organized in parallel with the civil/territorial divisions of the USSR. [ ]

7. **Manpower Availability.** The 1967 law expanded the manpower base over which the *voenkamaty* exercise jurisdiction by reducing obligatory military service from three to two years (from four to three years for certain naval components) and lowering the

Figure IV-1  
Voyenkomat Command Links



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draft age from 19 to 18. Reserve strength is now increased every second rather than every third year, and young men who have fulfilled their military obligation and learned skills that are useful in civilian or defense industries enter the civilian labor force earlier.

8. All conscripts are automatically discharged into the reserves after completion of mandatory service and remain subject to callup until age 50. Most officers remain obligated until at least age 65. Of the total population of the USSR, more than 50 million are males estimated "fit" for military service. Of this total, at least 25 million are reservists who have been added to the reserve pool since 1 January 1970. Theoretically, the Soviets can mobilize sufficient personnel to man all active Soviet divisional and nondivisional units, as well as inactive mobilization bases using only those reservists discharged from active duty within the last five years.

9. **Conscription.** Conscription is as old as the Soviet state, has played a key role in its survival, and has become an accepted feature of Soviet life. Conscripts make up about 75 percent of the ground forces. Overall, the Soviet conscription system functions with a high degree of efficiency, and few qualified males escape some form of service. Deferments are carefully defined in statutes, rigidly enforced, and reviewed annually by the commissariats. The system is vulnerable to human manipulation and has occasionally been circumscribed, but instances of bribery for purposes of draft evasion are relatively rare. Assignments are made primarily on the basis of the draftee's qualifications and potential.

10. Formal registration for conscription occurs between ages 16 and 17. During registration, youths complete questionnaires and are interviewed, given a physical examination, and issued a certificate of registration. The potential inductee is queried about his interests and about which service or branch of the armed forces he would prefer to serve. The youth also is advised or ordered to participate in training programs sponsored either by DOSAAF (the Voluntary Society for the Cooperation with the Army, Air Force, and Navy), a paramilitary training organization, or the commissariat itself. Any physical defects revealed during the medical examination are discussed, and efforts are made to correct them prior to induction. The same process is repeated the following year during induction. As a result, manpower assets are determined as much as two years in advance of each induction. The Soviets reject approximately 3 percent of their potential conscripts at induction.

11. Peak commissariat conscription activity takes place during the semiannual callups held in the spring

and fall of each year. At this time, men 18 years of age (unless deferred) are ordered by the commissariats, usually by mail, to report for induction. At the local *voyenkomat* inductees are given a final medical examination and usually are transported to a regional *voyenkomat* for assignment to units. The unit and place of assignment are rarely known to the draftee until he actually arrives at the unit. A unit assignment usually is deliberately made to an area far from the draftee's home. [ ]

12. Quotas are created and filled on the basis of not only the long-term needs of staff planners, but also the immediate needs of operational components. This is especially true of technical specialties. The difficulty in filling critical specialties has led to the system of "pokupateli" or military "buyers." These are usually officers from active units who visit *voyenkomaty* at all levels to scan the files of draftees for selection into their units. Such "raids on talent" are coordinated with the staff of the local military district and are especially lucrative in urban areas. Conscripts less qualified, usually from rural and non-Russian areas, are often placed in railroad or construction units. Service by minorities in construction and railroad units and as riflemen appears to be largely due to a lack of skills and fluency in the Russian language. To cope with this problem, in some areas of Soviet Asia the *voyenkomaty* have initiated training programs in the Russian language. Such training is continued by at least a few active units after induction. [ ]

13. After serving the required two years of military service, the conscript is given the opportunity to apply for extended service. If he chooses not to extend (the reenlistment rate averages about 3 percent), he is discharged into the reserves and given a mobilization assignment which is simply a reporting site, usually a readily accessible and well-known location such as a public square, a public building, or perhaps the *voyenkomat* itself. Unit nomenclatures and the names of reservists assigned to them are identified only in commissariat and unit files. [ ]

### The Mobilization System

14. At the national level, military mobilization is the responsibility of the Mobilization and Organization Directorate of the Soviet General Staff. The management functions of the Directorate are performed at lower levels by the mobilization and organization

departments of the military district staffs, by the mobilization departments of the numerous military commissariats, and by civilian enterprises. Ultimately, however, the military commissariats play the vital role in the Soviet force generation process and have become quite proficient in supporting this process. In peacetime, the ability of the *voyenkomaty* to manage large groups of men under conditions of conscription, reserve training, and alerts has been demonstrated. In those instances of partial mobilization, the competence of the commissariats in responding to the needs of the military has been generally impressive. [ ]

15. Although the Soviets have a well-structured mobilization bureaucracy, the nature of modern warfare and its potentially heavy losses will place severe strains on a system that has not been tested as a whole since World War II. In the event of a general mobilization, about 2.5 million men and 200,000 vehicles would be required to flesh out existing ground formations and units, as well as mobilization bases. Under simulated and controlled conditions of partial mobilization in peacetime there are often instances of difficulties, due in part to human error or poor planning. If Soviet planners have the time to prepare carefully, however, they should be able to minimize major shortcomings and mishaps that would be likely to characterize an emergency national mobilization. [ ]

16. **Manpower Mobilization.** *Voyenkomat* authorities review mobilization assignments semiannually with the deputy chiefs of staff for mobilization of the units served. These reviews result in changes in assignments and expose shortages in personnel and skills. The *voyenkomat* authorities assign available reservists with the necessary skills to fill these assignments or, if necessary, call up reservists for retraining in the skills required. [ ]

17. Detailed planning for mobilization is conducted at the division and regimental levels by the deputy chief of staff for mobilization. These officers and their staffs review the unit's mobilization plans semiannually and set requirements for additional reservists to fill mobilization positions. These requirements are forwarded to the military district staff and to the local *voyenkomat*. The local *voyenkomat* in turn satisfies these requirements by assigning the most recently trained reservists with the necessary skills to the unit. Individual reservists are assigned by name to positions within these units. With the exception of most officers

and some enlisted reservists who hold critical specialties, many Soviet reservists will not know their specific assignments until mobilization or after the outbreak of war. [ ]

18. In the event of mobilization, the *voyenkomy* would immediately be tasked with the callup of reservists to flesh out understrength units and any newly created components. As previously mentioned, the reserve pool of the Soviet armed forces is more than sufficient to meet postulated requirements. During peacetime, the Soviets use alert and mobilization exercises to test the ability of *voyenkomy* to provide resources within specified times. [ ]

19. **Equipment Mobilization.** The military commissariat also is responsible for supplying the armed forces with reserve materiel, primarily transportation assets. Although active units possess much of their combat equipment, ground units would require additional transport and engineer vehicles to augment divisional motor transport, expand or create nondivisional combat and combat service support units, or replace losses. These vehicles include general purpose cargo trucks, tractors, graders, mobile repair shops, fuel and water trucks, buses, ambulances, passenger cars, and taxis. [ ]

20. In peacetime, these vehicles are assigned to state enterprises, collective farms, and transportation conglomerates. However, certain of the vehicles and their drivers are selected and organized into motor transport columns (or *avtokolony*) by the commissariats for mobilization in the event of war. These vehicles are maintained according to military specifications and are inspected yearly by personnel of the mobilization departments of the *voyenkomat*. They have specific mobilization assignments, and the drivers are reservists subject to recall. In addition, the *avtokolony* undergo periodic alerts, often in conjunction with mobilization exercises. Deployment of vehicles is usually to a *voyenkomat* or a field assembly point. *Avtokolony* contain as few as five or as many as 1,200 vehicles. Some 690 *avtokolony* have been identified, predominantly in the European USSR, but the total number may be much larger. Those identified contain an estimated total of more than 200,000 vehicles. [ ]

21. **Performance.** Historically, the military commissariats have been quite successful in meeting the military manpower and equipment needs of the Soviet Union. Not only was their role crucial to the victory of

the Bolsheviks in the civil war of the early 1920s, but during World War II the Soviets mobilized enough divisions to greatly exceed the early German estimates of Soviet force generation capabilities. [ ]

22. The ability of the commissariats to respond to crises under conditions of partial mobilization were tested during the Czechoslovak crisis in 1968, and more recently during the Soviet invasion of Afghanistan in 1979-80. With some exceptions, the *voyenkomy* appear to have performed efficiently in both cases. During the Czechoslovak crisis, for example, the eight urban *voyenkomy* of Minsk Oblast were ordered to mobilize 10,000 reservists. Three hours after the alert, 60 percent of the force had been notified and had reported to initial assembly points. Within six hours all reservists had been assembled. Once assembled, the reservists were segregated according to military specialties and sent in groups to field assembly areas adjacent to units as yet unidentified to them. At the assembly points, makeshift facilities had been established by receiving units at which the reservists received uniforms, equipment, and weapons. In some instances processing into units was accomplished within a matter of hours. [ ]

23. Soviet mobilization efforts for the invasion of Afghanistan, however, were not without shortcomings. There were instances of hostility and late reporting by reservists, many of whom were Muslim. There were also some delays in the arrival of civilian transportation assets and several instances of poor coordination between the *voyenkomy* and local military staffs and units. Some reservists were deployed to unit field assembly points only to be dismissed weeks later without having joined their units. Several senior officers were reportedly dismissed because of poor performance in mobilizing the 201st Motorized Rifle Division in the Central Asia Military District. [ ]

### Training

24. **Premilitary Training.** Although some form of premilitary training has long been a feature of Soviet life (see inset for comparison with US practice), such training was essentially voluntary before 1968. The 1967 law, however, made premilitary training obligatory, probably to compensate for the reduced conscription period. The law also gave the military commissariats a shared responsibility for such training as

### Comparison of Soviet and US Training Practices

- | Soviet   | US   |
|--|--|
| 1. Two-year conscript soldier with officer corps as the primary long-term professional cadre   | 1. Three-year volunteer with both an NCO and officer corps as the professional cadre   |
| 2. Formal preinduction training to develop basic military skills   | 2. Preinduction skills developed through nonmilitary sources (scouting, sports, and driver training)                             |
| 3. Combination of basic, AIT (advanced individual training), and NCO development during the first six-month cycle  | 3. Basic training followed by skill-related AIT  |
| 4. Repetitive six-month training cycle in units  | 4. Annual training program implemented by local commander to develop skills for ARTEPs <sup>a</sup> and cross-training as needed |
| 5. Cross-training limited by conscription period   | 5. Cross-training encouraged to develop soldier skills and for general education and promotion potential                         |
| 6. Intensive classroom training followed by use of simulators and designated training equipment; combat equipment mostly maintained in storage, "conserved" for combat use | 6. Classroom training followed by extensive "hands-on training," making each soldier more confident with his job and equipment   |
| 7. Repetitive training using skills "normed" (timed) to standards is stressed  | 7. Task-oriented training allows development of a skill to a reasonable single goal  |
| 8. After discharge reservists may be called up for short periods of refresher training or exercises  | 8. National Guard and Reserve are paid for 39 days of training annually  |

<sup>a</sup> Army Training and Evaluation Program evaluations.

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well as a major responsibility for the training of reservists

25. Training of youths between the ages of 16 and 17 is conducted—under a program formally called *Nachal'naya Voyennaya Podgotovka* (NVP), meaning Initial Military Training—in secondary schools, factories, and collective farms and is arranged by the *voyenkomaty*. School authorities and employers allocate time and facilities, and the commissariats provide materiel and instructors, usually retired officers or reservists. The typical NVP training program consists of 140 hours of classroom instruction in such subjects as first aid, civil defense, military regulations, tactics, mapreading, close-order drill, and small-arms familiarization and firing. This training serves essentially as an abbreviated basic training program designed to ease the transition of youths into military service

26. Upon registration at local commissariats at age 16 or 17, future conscripts are carefully screened and

encouraged (or ordered) to undertake training in such specialties as telecommunications, radar technology, parachuting, aviation, navigation, and vehicle maintenance and driving. These skills are in demand by the armed forces and the practical training is meant to complement the NVP. Responsibility for such training belongs to DOSAAF. It is conducted throughout the year at facilities maintained by DOSAAF, the *voyenkomaty*, or the armed forces

27. Although the quality of training varies, it is extensive. In any given year, approximately 11 million youths are enrolled in DOSAAF training programs, acquiring familiarity with nontechnical basic military skills as well as some exposure to more technical subjects. The quality of DOSAAF training is sometimes criticized in official Soviet writings. Among the criticisms are: shortages of well-trained instructors; poorly organized programs and a lack of coordination and cooperation among various agencies; poor teaching

and training facilities; old or worn equipment; and grade inflation to meet certification requirements. Shortcomings related to the quality of instructors and training facilities are probably more acute in rural or remote areas than in European Russia. The Soviets are attempting to improve the quality of DOSAAF training by increasing budgetary allocations, seeking highly motivated youths, providing better equipment and facilities, and assigning better trained instructors.

28. **Postinduction Individual Training.** Individual soldier skills are developed during unit training or six-month NCO/specialist courses. Although most conscripts are sent directly to their units by *voyenkomaty*, selected conscripts are sent to training divisions or regiments for six-month NCO or specialist courses prior to reporting to operational units. Both types of conscripts receive an identical basic training course, which lasts about four weeks and includes rifle instruction, CBR (chemical, biological, and radiological) training, physical training, political indoctrination, and drills and ceremonies. At the end of this course the conscript takes an oath and officially becomes a soldier. For conscripts assigned directly to units, basic training is conducted in provisional companies or platoons formed by the unit to which they are assigned. Conscripts selected for NCO or specialist training receive basic training during the first month of their six-month course. During this monthlong period immediately after troop rotation, about 20 percent of the Soviet ground force manpower is made up of new conscripts undergoing basic training. The remainder of the six-month course is devoted to tactical, technical, and weapons training designed to enable conscripts to perform the jobs for which they have been selected.

29. **Postinduction Unit Training.** Unit training is conducted according to a set of regulations, applicable throughout the force, that specify the types of training, the number of lessons and hours, and the number of field training exercises. The annual unit training program is divided into two distinct periods—winter and summer. Each training cycle begins with the arrival of new conscripts to replace those completing their active-duty tours. For the first month after troop rotation, basic training is conducted. Personnel not involved in providing basic training perform maintenance on equipment and make other preparations for unit training. The unit training program formally begins when new conscripts complete their basic training and are integrated into their units.

30. According to regulations, training is usually planned for five days a week, seven hours per day. Saturday is generally reserved for maintenance and housekeeping duties. Sunday is normally a day of rest and/or organized sports. Heavy emphasis is placed on individual, squad, and platoon-level training (see table IV-1). Unit field exercises are designed to perfect individual and collective skills and to train commanders and staffs in controlling units under field conditions simulating combat. Field maneuvers are considered essential in forging unit integrity and proficiency (see table IV-2).

Table IV-1  
Allocation of Training Time in  
Soviet Motorized Rifle Units

Type of Training	Hours		
	Winter Period	Summer Period	Yearly Total
Political	84	84	168
Individual, squad, and platoon-level training	420	458	878
Company training	48	80	128
Battalion training	51	51	102
Regiment and divisional exercises	56	56	112
Administration (commander's time, training tests)	41	41	82
<b>Total</b>	<b>700</b>	<b>770</b>	<b>1,470</b>

Table IV-2  
Soviet Requirements for Field Training Exercises

Unit	Number of Exercises per Year	Length
Company	2	1-1.5 days
Battalion	2	2 days
Regiment	1	3-4 days
Division	1	5 days

31. The peacetime manning of a unit determines the training program which it can accomplish in peacetime (see table IV-3). All active divisions provide individual training to their assigned personnel and can conduct staff training up to division level. Only the full-strength ready divisions, however, can completely carry out the full unit training program. Reduced-strength ready divisions can carry out the full program; however, effectiveness is reduced because these

Table IV-3

**Training Carried Out by Soviet Divisions With  
Peacetime Authorized Personnel**

Division Type	Individual Training	Staff Training/CPX			Unit Training/FTX		
		Battalion	Regiment	Division	Battalion	Regiment	Division
Full-strength ready	X	X	X	X	X	X	X
Reduced-strength ready I	X	X	X	X	X	X	X
Reduced-strength ready II	X	X	X	X	Most	Most	X
High-strength cadre	X	X	X	X	Some	0	0
Low-strength cadre	X	X	X	X	0	0	0

divisions have cadre battalions and/or regiments. Cadre divisions cannot carry out unit training at the regimental and divisional level, although high-strength cadre divisions can conduct limited battalion-level training. Low-strength cadre divisions are limited to company-level training. Cadre and reduced-strength ready divisions also train by calling up reservists and conducting regimental and division FTXs (field training exercises) at specified intervals. Mobilization bases do not carry out a regular training program in peacetime. [ ]

32. Soviet training begins with theoretical instruction in the classroom, during which instructors present information extracted from manuals. The students copy this information into notebooks, which are retained as their personal manuals. These notebooks typically are highly detailed, filled with drawings and mathematical formulas. Conscripts constantly refer to them during their two-year military obligation. [ ]

33. Practical training involves the use of time standards or training norms that each individual, crew, or unit must achieve to be considered proficient. Activities covered by these norms are practiced over and over to meet or exceed standards and maintain proficiency. Norms are worked out in detail by selected units during the troop-testing phase for new equipment. Normally, they are published with separate requirements for day and night performance standards. There are four levels of performance: unsatisfactory, satisfactory, good, and excellent. The higher norm levels (good and excellent) are set by using highly trained and motivated individuals. Once the norms are established and published it appears they are rigidly followed. Second-year conscripts are often required to achieve higher levels of performance than those re-

quired of first-year conscripts. The standards are considered to be attainable without "bending" regulations or sacrificing safety requirements. Any damage to equipment or injury to personnel that occurs during performance testing results in an unsatisfactory evaluation. [ ]

34. Training within units is repetitive and stereotyped. Commanders and political officers are responsible for developing "an enthusiastic level of Socialist Competition." A system of instant recognition and rewards for excellence are used to encourage individuals, crews, and units to excel. Poor performance is a matter for "socialist criticism" at evening political sessions. [ ]

35. **Harvest Support: Impact on Training.** The military makes a well-publicized and important contribution to the Soviet harvest. Troops and vehicles are drawn from most types of active-duty units under orders issued by the Ministry of Defense. Individual commanders can choose which resources to send, and generally divert to the harvest those assets least critical to unit readiness. Overall, harvest support does reduce resources on hand for training and therefore has a temporary adverse impact on unit readiness. However, should the Soviets contemplate initiating military operations, harvest support by military units could be canceled or greatly curtailed, minimizing or negating its impact on readiness. [ ]

36. Each spring the groups of forces release about 20,000 personnel (about 5 percent of total group strength) and about 15,000 trucks to the harvest. "Provisional" harvest support battalions consisting of

400 to 500 trucks and 700 men begin forming in the USSR and the groups of forces in May and June. These units sign contracts with state collective farms and migrate within the USSR, following the harvest, from June through October or November. Personnel involved are conscripts who usually have served six to 13 months. While away on harvest duty, these troops are retained on parent unit rosters. Most of the vehicles involved probably are in excess of unit war authorizations and represent a minimal drain on assigned unit assets. We do not believe that the release of personnel and vehicles from the groups of forces appreciably degrades readiness for initial operations, but it may deprive the Soviets of reserve vehicles.

37. Units within the USSR also support the harvest. Since most internal units are under strength and often

short of cargo trucks, harvest support probably degrades the overall preparedness of these forces for military operations. This degradation is minimized, however, by assigning older equipment scheduled for replacement or overhaul and a high proportion of reservist, rather than active-duty soldiers, to the harvest support battalions formed in the USSR.

38. **Reservist Training.** Overall, the Soviet reserve system (see inset for comparison with that of the United States) provides a large pool of manpower with military skills. The reserve training provided, however, is of uneven quality and frequency at best. Individual reservists rarely participate in the full number of callups allowed, and there appears to be little effort to assure unit cohesion by repetitive assignment of reservists.

**Characteristics of Soviet and US Reserve Programs**

	Soviet	US
Basis for participation	Mandatory	Voluntary
Availability of reservists	Limited by capacity of personnel processing system and demands of the civilian economy. All qualified males to age 50 are registered as reservists.	Limited by numbers of men liable to recall—380,000 paid reservists, 443,000 paid members of the National Guard, and 420,000 unpaid ready reservists.
Authority for full mobilization	Can be proclaimed by the Presidium of the Supreme Soviet.	Requires Congressional declaration of war or national emergency.
Authority for smaller callups	Minister of Defense has great flexibility in recalling individual reservists for up to five months (three-month initial callup plus up to a two-month extension) of active duty in peacetime.	President has authority to order selected reservists to active duty for up to 90 days without declaration of national emergency.
Active-duty training	Conducted on an individual basis; participation is spotty and infrequent: average of four to seven days per year.	Two weeks of annual training on a unit basis. Some individual training for paid reservists.
Weekend training	None.	One weekend per month for most paid reservists.
Organization	No reserve unit organization.	Extensive reserve unit organizational structure.
Skills in reserve pool	Manpower pool consists largely of former conscripts with limited technical skills.	US reserve forces include personnel mix which is determined by needs of active units and success of recruiting efforts.
Active-duty pay	Reservists receive 75 percent of their civilian wages from their employer in addition to their military pay when on active duty.	Reservists are not paid by civilian employer while on active duty. Reservists eligible for pay receive a wage from the Department of Defense for weekend drill and active-duty training.
Reserve retirement system	None	Reservists qualify for pensions after 20 years' service on reaching the age of 60.



Table IV-4

Statutory Training Obligations of  
Enlisted Reserves in the USSR <sup>a</sup>

	Class I 18-34 years	Class II 35-44 years	Class III 45-49 years
<b>Category I</b>			
One year or more of active duty	Up to 4 callups of up to 3 months each	1-2 callups of 2 months each	1 callup of 1 month
<b>Category II</b>			
Less than 1 year of active duty	Up to 6 callups of up to 3 months each	1-2 callups of 2 months each	1 callup of 1 month

<sup>a</sup> Maximum permitted by law except that the Defense Minister "in the event of necessity" may retain reservists for an additional period up to two months. Reserve officers who are graduates of higher educational institutes may be called up for two years of active duty. Reserve officers are subject to callup for up to three months for refresher training every third year and a 40-hour training course on alternate years up to the age of 65.

39. Although the 1967 law establishes and defines training requirements for reservists (see table IV-4), many former reservists report irregular or infrequent callups. In fact, the Soviets do not require annual training for reservists. Reportedly, only reservists with demanding technical specialties are likely to be recalled for additional training with regularity and frequency. Most reservists are unlikely to be called up more than once during their period of obligation. Rather, the law was probably meant to be flexible for reservists with only basic military skills, and to serve primarily as a guide to the commissariats. The size of the reserve manpower base and economic factors also dictate some selectivity in reserve training. Furthermore, the accrual of conscripts into the reserve pool should provide sufficient recently discharged reservists to meet immediate needs and short-term requirements as determined by the General Staff [ ]

40. The relative contribution of reservists to Soviet military power in each theater depends on the regional mix of "ready" and "not ready" divisions. "Ready" divisions constitute 85 percent of potential Soviet combat effectiveness upon mobilization in the Western Theater and 65 percent even after the "not ready" divisions complete additional training. Hence, reservists are less important against NATO. "Not ready" divisions opposite Iran, on the other hand, represent 50 percent of Soviet power in the area upon mobilization and 70 percent after training. Hence, the availability and quality of reservists has a major impact on Soviet military operations in the Persian Gulf area. [ ]

41. To satisfy mobilization needs the Soviets largely depend on reservists who have completed their active duty within two to five years. This practice minimizes the need for refresher training of personnel in many military specialties, such as riflemen, drivers, and ammunition loaders in tank crews. Reservists with such skills—usually the most physically but least technically demanding—would constitute a high proportion of personnel needed upon mobilization. The bias of the recall system in favor of youths and recent conscripts does have an inherent disadvantage, however: the frequency with which older conscripts are replaced with recently discharged conscripts on mobilization rosters precludes continuity among the reservists assigned and prevents the development of unit cohesion. [ ]

42. The pool of conscripts trained in technical skills—such as communications, engineering, artillery, and armor—during each training cycle is smaller relative to mobilization needs than the pool of reservists with more basic military skills. The relative value of these reservists to the overall operational capabilities of a division, however, is higher than that of individual infantrymen. Emigres report that reservists with such skills are indeed likely to be recalled relatively frequently for additional training. Units demanding these skills are also more likely to conduct frequent mobilization exercises and reserve training. [ ]

43. Regional and ethnic factors impact on the distribution of specialized skills among the military dis-

tricts. There is reportedly a bias against training non-Slavic minorities in technical fields. This bias results from the typically lower competence in the Russian language and the generally lower educational levels among non-Slavs, although possible Soviet concerns about the reliability of such ethnic groups may also be a contributing factor. [ ]

44. The practice of having Soviet conscripts serve their active duty outside their native republics disguises the geographic distribution of personnel with critical skills within the USSR. The reserve system is territorially based and must draw such skills from local manpower pools. This situation probably does not cause problems in the densely populated western military districts of the USSR where the population is highly educated. However, in some areas such as Central Asia and the Far East, there are not enough trained specialists to satisfy local reserve requirements. The Soviets were forced to transfer specialists in several technical skills from active units in the western military districts and the groups of forces to Afghanistan to satisfy operational requirements for such skills. During a large-scale mobilization of understrength units, the Soviets might find it more difficult to balance the distribution of technical skills among mobilized units. During a national mobilization they might be hard pressed to fulfill all requirements for technical specialists in the armed forces, particularly without transferring technicians from defense-related industries. [ ]

45. Although the Soviets have a requirement and standard for individual training, the primary focus of Soviet reserve training is the unit rather than the individual reservist. Reserve callups are scheduled to maintain a required level and frequency of unit training rather than to satisfy the legal obligations or training needs of the individual reservist. Reserve soldiers and NCOs are seldom called up more than once for retraining, and most reserve officers are seldom called up even for lectures more than once every five years. The more demanding technical skills are reportedly subject to more frequent callups. Patterns apparently vary among military districts, and callups are more common in those with lower population densities, particularly in Central Asia and the Far East. [ ]

46. The frequency of reserve training at division level varies according to the unit's mission and loca-

tion. Divisions which have critical missions early in the mobilization process—typically "ready" divisions on the Soviet frontier—usually mobilize some reservists annually or semiannually for refresher training and field exercises. Cadre units in the interior of the Soviet Union usually mobilize reservists for division-level exercises only once every five years. These exercises are usually conducted in conjunction with a general readiness inspection of the unit by the General Staff. [ ]

47. Patterns of reservist training also may vary within divisions despite location and nominal peacetime strength. Specialist subunits, such as engineer and artillery, typically conduct reservist training more frequently than other subunits regardless of the status of the parent division. Reservists are also used by divisions to reduce the burden of supporting the civilian economy. Reservists are called up by many to fill personnel quotas for harvest support and to perform garrison housekeeping chores and vehicle maintenance. Reservists rarely receive specialized training to refresh their nominal military skills during these callups. [ ]

48. A few units that appear to operate as reserve training units have been identified. Reservists are typically called up on a rotating basis for two to three months in these units. Local *voyenkomaty* and divisions also call up reservists for alert exercises to test notification and reporting procedures for mobilization. These exercises, which do not count against a reservist's legal obligations, are conducted frequently and typically satisfy rigid Soviet norms. In some areas, these callups are expanded to include familiarizing the reservists with their positions in the local unit. Refresher training is seldom conducted during these alerts. [ ]

#### Equipment

49. Soviet ground equipment (see inset for comparison with US counterpart) is designed to satisfy operational requirements in both nuclear and conventional warfare. Historically, equipment has been simple to maintain and operate, and proven, older equipment types are kept in service, as illustrated by the continuing use of such weapon systems as the T-55 medium tank and the 122-mm howitzer M-1938 (M-30). Newer models of equipment, however, are incorporating increasingly sophisticated technology. [ ]

### Comparison of Characteristics of Soviet and US Equipment

Soviet	US
1. Designed for intensive combat.	1. Designed for combat and for intensive training use.
2. Conserved for wartime use through short- and long-term storage. Training depends on intensive use of simulators and selected training equipment.	2. Used in "hands-on training" to develop training and maintenance skills.
3. Based on evolutionary designs to satisfy simple tactical-technical requirements.	3. Based on designs all new from ground up, using the latest technology, often to perform multiple mission requirements.
4. Producing in large quantities using common components and innovative sub-components when necessary to fulfill combined arms role.	4. Produced with high technology to achieve high quality that will match or be better than that of fielded threat.
5. Provided with scheduled maintenance and subjected to controlled usage in a program designed to maximize availability.	5. Governed by policy to "inspect and repair only as necessary" dictated both by maintenance cost-consciousness and high rate of equipment usage.
6. Supported by austere peacetime spare parts, supply and repair system. To assure readiness, Soviets maintain a war reserve of equipment.	6. Supported by extensive peacetime supply and maintenance system to assure availability for combat.

50. The Soviets attempt to maintain homogeneity in equipment throughout their forces. The size of the force structure, however, requires an incremental approach to the fielding of new or improved equipment. This results in a mix of equipment in units, particularly in "not ready" units, vastly complicating the problem of providing spares, ammunition, and maintenance skills to match requirements. The diversity of equipment types also makes it more difficult for *voyenkomaty* to match reservists with the necessary skills.

#### Design Philosophy

51. Soviet ground equipment is designed to satisfy both technical and tactical requirements on the battlefield. The development process can be long and

complex for totally new systems, but can be very responsive in reacting to a fielded or anticipated threat. Each new system or product improvement is designed to enhance the system's capability on the battlefield and to be producible in large numbers. The goal is that these systems be equal or superior to comparable existing or projected Western counterparts. A program of continuous product improvement makes maximum use of each piece of equipment or subcomponent during its life cycle.

52. Designers are obliged to consider formalized national standards and regulations during every stage of the design process: the Unified System of Technical Preparation for Production (YeSTPP) requires continual consultation between designers and production engineers to ensure product compatibility; the Unified System of Design Documentation (YeSKD) specifies a uniform and structured process of design emphasizing cost consciousness, the use of common off-the-shelf components, and reliance on available technology. The design process also is guided by military requirement documents which feature clear, unambiguous measures of performance but allow the designer maximum freedom in fulfilling the criteria of cost and manufacturability.

53. These elements, when translated by the designer into specifics, have resulted in a wide range of weapons displaying certain distinctive characteristics. The demand for large quantities and ease of production, for example, have tended to promote weapons with relatively clean and simple designs, machine-finished only to the degree necessary for smooth operation, at low cost per unit. Soviet weapons are usually designed with a single mission in mind rather than striving for the multiple capabilities of some Western systems. Finally, requirements for large-scale deployment dictate that obsolescence be avoided by designing for future retrofitting or upgrading rather than replacement. Product improvement is a constant process with modifications being made to enhance manufacturability as well as performance. Therefore, arms development in the USSR ordinarily proceeds in an incremental fashion, with newer systems evolving from older ones and with a great deal of component commonality.

54. Soviet designers have demonstrated, however, that they are capable of much more than incremental

product enhancement when the situation demands it. If a high-technology solution is demanded, then the Soviet designer will be encouraged to move in this direction, but only if there are no feasible alternatives. Soviet arms are following the worldwide trend toward intricacy and sophistication, but they are doing so *conservatively* and in a fashion that minimally contradicts the emphasis on quantity and manufacturability.

### Reliability

55. The Soviets achieve equipment reliability through a combination of design philosophy, training practices, and storage and maintenance procedures. Each of these parts is tempered to get the most use from equipment under the stressful combat and environmental conditions envisaged by the Soviets. Soviet planners place great emphasis on battle damage as opposed to day-to-day wear and tear as a source of attrition. Although under pressure to increase reliability whenever feasible, Soviet designers do not go to extreme lengths if the combat life of a given piece of equipment is assumed to be short. On the other hand, weapons not generally thought to be subject to immediate destruction, like battlefield radars, do appear to be configured more toward long-term durability.

56. During factory and acceptance testing, the behavior and frequency of failure of a weapon are carefully recorded, and on this basis the designer, manufacturer, and user agree on the service life and basic maintenance requirements. The service life and the number of hours of use accumulated against this lifespan remain basic reference points in the life cycle, determining weapons usage, storage potential, and maintenance.

57. Soviet design practices produce equipment that is generally quite reliable. This is indicated by assessments derived from field testing of Soviet equipment by data contained in Soviet technical manuals, and by estimates on expected performance based on technical specifications.

58. Reliability in cold weather is an important factor for Soviet equipment. An air start for tracked vehicles, and preheating of oil, fuel, coolant, and even some electronic systems are common design features. Environmental storage in permanent buildings is a

feature of most Soviet garrisons. Reliability in a climate characterized by heat or humidity, however, is often a problem, as these conditions are not encountered extensively within the USSR and consequently are not prime design criteria. Performance of Soviet automotive cooling systems in general is marginal at high ambient temperatures.

### Availability

59. Soviet doctrine stresses the delivery of a maximum number of usable weapons for combat when needed, and Soviet plans concerning availability focus on maintaining large quantities of equipment and supplies. To reduce wear and tear and conserve resources, many weapons are simply kept in storage, while their crews practice on simulators or equipment designated for training. Weapons used frequently are subject to a regular schedule of preventive maintenance. Heavy emphasis is also placed on the care and upkeep of weapons in storage, or conservation (*konservatsiya*), as the Soviets call it. Stored weapons are kept under shelter, out of sunlight, and are subjected to periodic inspection and use.

60. The semiannual training cycle makes extensive use of training vehicles and simulator training devices. Many units include quantities of obsolete equipment that are maintained in excess of TO&E and are used to facilitate the transition from simulator to equipment organic to the unit. Expenditure of full-caliber ammunition is limited, but there is extensive use of simulators and subcaliber ammunition. When organic vehicles used for training are sent to be rebuilt, their replacements go directly into storage, displacing older equipment which is withdrawn for training use. This reflects a conscious desire to maintain the newest equipment in the best condition for combat. Exercises begin and end with movement of tracked vehicles by tank transporter and rail to protect tracks and preserve usable mileage. Design criteria for armored vehicles, especially tanks, rigidly limit tracked vehicle width to enable every model to be moved on existing standard flatcars.

### Equipment Conservation

61. The Soviets maintain stringent equipment conservation and storage procedures, and from 60 to 85 percent of a unit's equipment is maintained in storage in peacetime. These efforts are designed to achieve



economies and attain high levels of combat readiness. Conservation procedures generally limit the quantity of vehicles in daily use and the number of kilometers vehicles may accumulate. The Soviets have followed this conservation policy, with some procedural but little systematic change, since World War II. The goal of this storage system is threefold:

- Reduced usage, permitting the fielding of the maximum quantity of combat-ready equipment.
- Reduced replacement and repair parts requirements, thus diminishing the economic burden of a large military force.
- Reduced POL consumption.

62. About 15 to 35 percent of a unit's vehicles are used for training, transport, and housekeeping duties; the remainder are kept in various modes of storage. Stored equipment may be activated for maneuvers when needed to accomplish training requirements. While the military district commander provides overall direction concerning usage, it is the regimental commander who controls daily use and storage.

#### Storage Modes

63. There are two types of vehicle storage: daily and extended.  Extended storage can be of short or long term. Equipment maintained in daily storage receives daily servicing by the crew. Armored fighting vehicles, for example, are cleaned, and any defects detected in the engine, electrical system, brakes, tracks, or transmission are corrected. All armament and associated equipment on the vehicle are checked and repaired if necessary. Fuel and lubricants are topped off, and a check is made to ensure that authorized supplies, to include ammunition, are properly stored on the vehicle. If the vehicle is expected to be inactive for longer than 15 days, the cylinders are flushed with oil and the fuel pump is removed, greased, and placed in a preservative wrapping. Battery cables are disconnected and the terminals are greased. During winter the cooling system is drained. When equipment is prepared for short-term storage, a number of special measures and operations are performed in addition to regular technical servicing. The equipment crews and unit mechanics perform all operations in preparing for this type of storage.



64. Armored fighting vehicles are placed in daily storage if they will be out of operation for no more than a month; wheeled vehicles and tracked prime movers are stored in this mode for up to two months. Motor transport vehicles go into short-term storage when out of operation for up to three months, and tanks for up to a year. Although precise percentages of unit vehicles in the various storage modes are unknown, a full-strength ready unit probably would have most of its equipment in daily storage and the remainder in short-term storage.

65. Long-term storage can extend for up to five years and is practiced by cadre-strength units as well as reserve depots. Preparation for long-term extended storage begins at the subunit level with a complete technical inspection of the general condition of each item designated for storage. The officers and specialists of the appropriate services and maintenance sections, together with the platoon leaders and company commanders, as well as the battalion technical officer, thoroughly inspect and check the condition of assemblies and components, power packs, weapon system, communications, and instrumentation. Once deficiencies have been identified and corrected, technical specialists assigned from higher maintenance echelons or at designated storage facilities begin the elaborate procedures of preparing the equipment for storage. This process can require days to complete. (See table IV-5.

66. **Inspection.** To prevent deterioration of equipment, the storage system prescribes periodic technical inspections. The interval between inspections varies from a week at the company level to a year at the front or military district (MD) level. The annual front/MD-level inspection is the most formalized and stringent, and its results drive the year's maintenance effort. A comprehensive inspection plan is formulated and carried out at regimental level by a technical commission of vehicle, armor, weapons, and electronics specialists supervised by the regimental deputy commander for technical affairs. This group evaluates the condition of the equipment, the organization of its storage, its administrative records, and the knowledgeability of its maintenance personnel.

67. **Effectiveness of Conservation Practices.** The conservation storage system appears generally to reduce equipment usage, replacement and spare parts requirements, and POL usage. The effectiveness of

Table IV-5

## Storage Preparation and Removal Norms in the Soviet Ground Forces

Equipment Type	Preparation for Storage			Equipment Type	Removal From Storage		
	Type of Storage	Personnel Performing	Time Required		Type of Storage	Personnel Performing	Time Required
Tanks and APCs	Daily	Crew	3-4 hrs	Tanks and APCs	Daily	Crew	15-30 mins
	Short-term	Crew and mechanics	1-2 days		Unsealed; short-term	Crew	15-60 mins
	Long-term	Personnel of special storage units	3-4 days		Sealed; short-term, long-term	Crew	2-4 hrs
Trucks	Daily	Crew	3-4 hrs	Trucks	Daily	Crew	15-30 mins
	Short-term	Crew and mechanics	6 hrs-2 days		Unsealed; short-term	Crew	15-60 mins
	Long-term	Personnel of special storage units	1-2 days		Sealed; short-term, long-term	Crew	45 mins-2 hrs
Field and antiaircraft artillery	Daily	Crew	1-2 hrs	Field and antiaircraft artillery	Daily	Crew	10-20 mins
	Short-term	Crew and mechanics	6-10 hrs		Unsealed; short-term	Crew	20-40 mins
	Long-term	Personnel of special storage units	2-3 days		Sealed; short-term, long-term	Crew	1-2 hrs

procedures practiced and the reliability of stored equipment varies, however, from unit to unit, because of such factors as unit manning, location, postulated wartime mission, command emphasis, and the availability and expertise of technicians and supervisors. Generally speaking, "ready" units can be expected to maintain their equipment in a high state of readiness consistent with their anticipated early commitment during wartime. Stored equipment in cadre units, however, is sometimes maintained poorly. The major disadvantage of this system is that the storage of large quantities of combat equipment in peacetime may distort demands for repair parts and maintenance requirements that would be faced during wartime.

#### Maintenance

68. The first fundamental principle of the Soviet maintenance system is that the bulk of maintenance

and recovery units will be located at army and front levels. The second fundamental principle is that damaged equipment will be repaired at the lowest possible level and returned to the user. The third fundamental principle, which affects all aspects of the Soviet maintenance system (see the inset for a comparison with that of the United States), is the strict conservation (storage) of resources and the elaborate measures taken to implement this policy.

69. The Soviet attitude toward maintenance and repair reflects the larger emphasis on combat availability. The Soviets do not normally perform much peacetime mechanical repair at the unit level, other than scheduled servicing and replacement of components at predetermined intervals. Figure IV-2 depicts the number of man-hours required to perform various types of peacetime maintenance on selected equipment items. (s)

70. During wartime, the Soviets expect that the greatest source of replacements will be combat-damaged equipment repaired at or near the forward line of troops by organic repair resources from battalion to front level. The traditional sources of equipment

### Figure IV-2 Soviet Maintenance Norms

Note change in scale  
Man-hours required

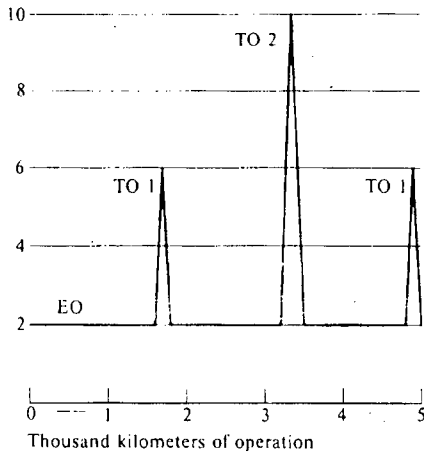
EO: Daily maintenance

TO 1: Technical Maintenance Inspection No. 1, performed by driver, assisted by mechanic from maintenance battalion

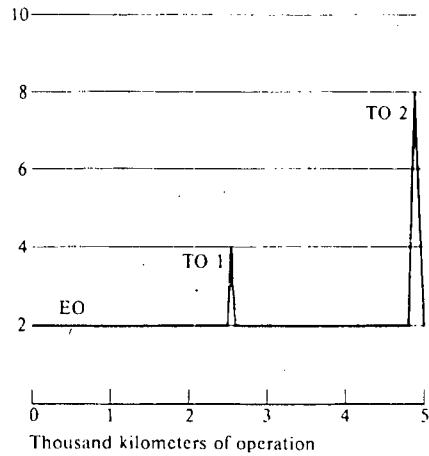
TO 2: Technical Maintenance Inspection No. 2, performed by driver, assisted by mechanic from regimental maintenance company

TO 3: Technical Maintenance Inspection No. 3, performed primarily by the divisional maintenance battalion with support as required from army or higher levels

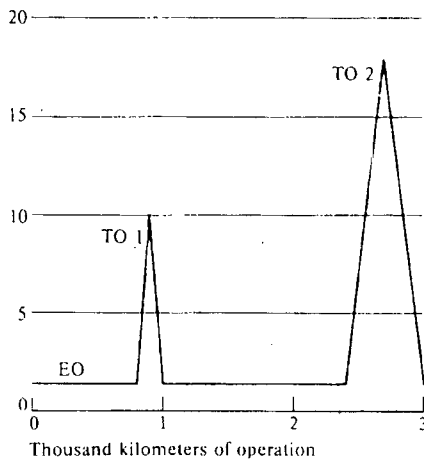
#### T-72 Tank



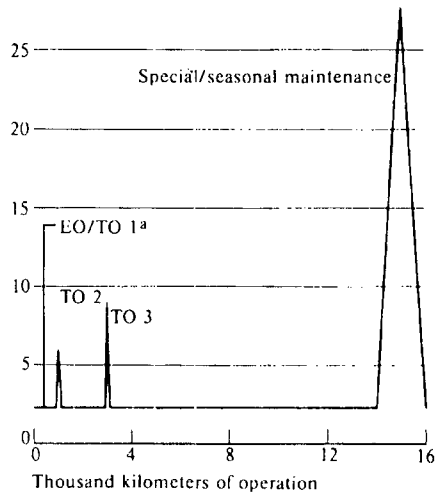
#### BMP Infantry Combat Vehicle



#### 122-mm Self-Propelled Howitzer



#### BTR-60 PB



<sup>a</sup> After every trip, 2-3 hours.

**Comparison of Soviet and US Maintenance Categories**

SOVIET	US	FUNCTIONS	PERSONNEL
Light	Organizational	Inspect, lubricate, adjust, clean.	US driver/crew. Soviet driver/crew.
		Minor repair, replacement, scheduled maintenance.	US company maintenance section, battalion maintenance platoon. Soviet driver/crew, battalion maintenance section.
	Direct Support	Parts issue or replacement of one major assembly.	US contact teams from division direct support company. Soviet regiment workshops, battalion maintenance section assisted by vehicle crew.
		Replacement of two or more major assemblies.	Soviet division workshops with driver/crew of vehicle.
Medium	General Support	Major repair and replacement of piece/part.	US corps support command, general support company. Soviet army workshops possibly with driver/crew of vehicle.
		Complete disassembly and rebuild.	US fixed theater depots. Soviet front repair enterprises and mobile workshops.

replacement are seen as somewhat less viable than in the past because of factors of time, distance, and attrition in the rear. As a result, the Soviets have placed a correspondingly heavier emphasis on equipment immediately repaired and rapidly returned to units. Damaged equipment would be repaired at the regimental level, if the repairs could be accomplished within several hours. Equipment requiring more repair time would be evacuated to support activities occupying garrison facilities or industrial complexes. The availability of transport to move damaged equipment to the rear would be critical.

71. The Soviet maintenance system is well suited to a fast-moving conflict with frequent rotation of front-line units and indeed is dependent on this rotation for effective repair and maintenance of equipment. Divisions forced to remain in high-intensity combat for longer than five or six days would begin to encounter serious maintenance recuperability problems due to losses that overwhelm repair capabilities. The Soviet maintenance organization, however, is tailored to support Soviet tactical concepts that do not require such sustained maintenance support.

72. The Soviets have organized their maintenance system to allow tactical units as much mobility as possible by not burdening them with large, cumbersome support units. Maintenance units at army and front level are responsible for providing support to tactical units. This system is not austere; it is tailored to conform with Soviet tactical doctrine. The past decade has witnessed a major upgrading in Soviet maintenance capabilities at all levels and corresponds closely to overall improvements in the capabilities of Soviet ground forces.

73. The Soviet ground maintenance system provides forward-based maintenance support designed to be immediately responsive to the needs of frontline units. The emphasis on mobility for all maintenance units at front level and below gives the field commander considerable flexibility in focusing maintenance support on key forces or axes of attack. Mobile maintenance facilities are well equipped to provide extensive light and medium repairs in the field, and field training exercises involving the participation of maintenance units provide realistic training.



74. The Soviet driver, as an integral part of the maintenance system, performs preventive maintenance on his vehicle, thus reducing the workload of maintenance units. The requirement that he remain with his vehicle during shop maintenance and assist maintenance personnel in making repairs provides an effective means of increasing his knowledge and skill. Those drivers capable of making minor repairs on their own, as required by doctrine, contribute to the responsiveness of the system. A preinduction driver training program provides a useful means of mitigating the lack of driving experience of Soviet youth.

75. Field maintenance support is provided through the use of mobile repair shop complexes at all levels from battalion through front. Many of these vehicles maintain a portable boom with a winch for use in removing engines and transmissions. Army and front have base shops capable of performing complete overhaul, major rebuilding, and capital repair of all combat equipment.

76. **Repair Parts.** The Soviet repair parts system embraces both day-to-day peacetime supply and the maintenance of wartime/emergency reserves. The peacetime system functions on a replacement concept. The division is the lowest unit level with a large quantity of repair parts, which are maintained in a parts warehouse. Since units at lower levels generally perform only minor repairs, limited supplies of repair parts are required at these levels. Small quantities of frequently used replacement parts necessary for routine maintenance and minor repairs are stored at regimental and battalion levels. Using their own vehicles, subunits draw needed parts directly from division warehouses. If a part is not available, it is requisitioned or obtained directly from an army repair parts depot.

77. The combat and emergency reserve repair parts system is totally separate from the peacetime parts flow. These parts are held in uploaded status by motor transport units at all echelons above regiment and in the mobile maintenance shop vans and associated cargo trucks and trailers of the respective unit maintenance elements at all levels.

78. All maintenance units have an initial or "first" issue of repair parts, for the use of the maintenance units to train personnel in repair procedures under field conditions, or in time of war. This "first" supply is determined from standard tables which, according to

the type of mission envisioned for a unit, estimate the probable repair requirements and therefore the amount of repair parts required. There is only limited information on the amount of repair parts that these tables predict will be needed by a division in combat for a specific length of time. However, with the time frame known to apply to such items as POL and ammunition, it can be conjectured that the repair parts stocks of a division without backup supply are enough to sustain the division for approximately six days.

79. Cannibalization of parts from disabled or stored vehicles during peacetime is prohibited by regulation, but does occur. The full extent of such practices is unknown, but most sources report that small accessory parts such as fuel pumps and batteries are the most likely items to be cannibalized.

80. **Effectiveness of Repair System.** In assessing the Soviet repair parts system, three major deficiencies are most apparent:

- The peacetime conservation (storage) of a large percentage of a unit's combat vehicles means that the repair supply system is supporting an artificially low vehicle count which would greatly expand during wartime.
- There is only minimal stockage of repair parts at levels below division.
- Numerous reports suggest cannibalization, pilferage, and bartering to obtain repair parts at unit levels. This suggests either that repair parts are not produced in sufficient quantities to meet requirements, or that first priority is given to stockpiling for wartime, while allowing day-to-day peacetime requirements to suffer.

#### Sustainability

81. The capability to support and sustain committed forces is a key element of readiness. Factors which affect this capability include:

- The availability of stocks of ammunition and POL to supply anticipated wartime requirements.
- The ability to transport supplies when and where needed.
- A maintenance system capable of efficiently recovering and restoring damaged equipment and vehicles.

[REDACTED]

82. During the past decade the Soviets have for the most part overcome their previous logistic shortcomings and now have a system capable of supporting a variety of offensive operations. They have increased both the size and the mobility of their front and army combat service support organization. From what we have observed in the Group of Soviet Forces in Germany (GSFG), it appears that the types of units required to support peacetime readiness levels are present in peacetime and that others—such as medical and mobile maintenance units—could expand quickly during mobilization [REDACTED]

83. *Ammunition and POL Stocks.* Assuming that a Soviet-type front operation (20 divisions) would last between 12 and 15 days, the front would consume some 150,000 to 225,000 metric tons of ammunition and between 100,000 and 135,000 tons of POL.<sup>5</sup> To assure the capability to support such operations, the Soviets have forward-stockpiled large quantities of ammunition and POL. In East Germany, for example, we estimate some 535,000 tons of ammunition and 660,000 tons of POL are stockpiled [REDACTED]

84. *Transport Capability.* The Soviets recognize the need for a flexible and responsive transportation system. They currently operate the largest rail network in the world, with more than 140,000 kilometers of track, dispatching 20,000 to 25,000 trains per day. The system is centrally administered from Moscow and is controlled through 32 regional headquarters. The Soviets have prepared plans for militarizing the rail system in wartime and have conducted limited exercises. In wartime, the military Railroad Troops (with at least some 250,000 personnel) would support the operation and maintenance of the system [REDACTED]

85. The Soviets have also developed an extensive motor transport system designed to support military requirements. This system provides both military transport units and civilian transport resources for military use. The backbone of the auto transport system are trucks of the Ural, ZIL, MAZ, and KAMAZ series. These vehicles are rugged, are standardized throughout the USSR, and can readily support military operations. During the last 10 years, the Soviets have

<sup>5</sup> These figures include requirements for a force of about 500 fixed-wing aircraft and 300 helicopters operating as aviation support for the front. Division consumption ranges are 1,150 to 1,400 metric tons of ammunition and 550 to 650 tons of POL per committed division per day. (s)

systematically upgraded the transport capability of units by introducing additional vehicles with greater load capacity [REDACTED]

86. The extent to which transportation problems might affect mobilization and movement is highly scenario dependent. The distribution of the Soviet transportation network is uneven. The best developed and most heavily used parts lie in the European USSR, with Moscow the hub from which roads and rail lines emanate. In this area, the railways, highways, and, to a lesser extent, the waterways parallel each other and provide a relatively dense web of transport services. The rest of the USSR—about 60 percent of the land area—is serviced by a sparse pattern of transportation routes. Terrain and climatic conditions also present enormous problems in the maintenance of transportation networks and movement. The railroads would be the mainstay of military movement during wartime, with the highways playing a supplementary role [REDACTED]

87. Large-scale military operations would produce a sudden surge in demand for transportation services and would therefore preempt a large share of transportation assets and facilities otherwise available to support the civilian economy. After an initial surge in demand for transportation assets in conjunction with the movement of troops and equipment, transportation requirements would slacken somewhat and the system could begin to adjust to a wartime environment. Nevertheless, military demands would continue to be high, and major adjustments in transportation patterns would present serious problems for Soviet planners [REDACTED]

88. The Soviets have increased the availability of the road and rail systems for the movement of combat forces—particularly in the region opposite NATO—by expanding their storage of ammunition and POL in forward areas, thus reducing the need to use rail and roads for logistics. The need to use these networks for resupply could be substantially reduced if refined petroleum were moved by the pipeline of the Council for Mutual Economic Assistance (CEMA). Conversion of the pipeline from crude to refined products would take about one week; thereafter, the system would be capable of delivering 55,000 metric tons of petroleum daily to both East Germany and Czechoslovakia. Fuel probably also would be delivered to frontline units by a tactical pipeline network laid by special POL resupply units with pre-positioned equipment in forward areas. [REDACTED]

89. **Western TVD.** Current assessments indicate that the Soviets have stockpiled sufficient ammunition and POL to support operations for five fronts for a period of 60 days for ammunition and up to 90 days for POL. These stockpiles amount to an estimated 1,960,000 metric tons of ammunition and 3,435,000 tons of POL. These stocks could be expanded substantially by drawing from large strategic reserve stocks located west of the Urals in the USSR. Overall Soviet motor transport capability has grown substantially since the early 1970s. In 1973 the transport assets available to transport ammunition in a GSFG motorized rifle division numbered about 570 trucks and trailers with a lift capacity of approximately 2,600 tons. By 1980 these figures had increased to more than 970 trucks and trailers with a lift capacity of approximately 4,500 tons. Recent evidence indicates that yet another transport upgrade is under way with the introduction at the division level of the KAMAZ truck with a 16-ton capacity [ ]

90. **Southeastern TVD.** Ammunition stockpiles in the North Caucasus, Transcaucasus, and Turkestan Military Districts are estimated to total some 345,000 tons. This stockage could sustain 23 committed divisions and five uncommitted divisions for a period of up to two weeks. POL stockpiles (some 1.5 million tons) could sustain the number of divisions for a period of about 100 days. The railroad system is capable of supporting the movement of 10 to 120 trains per 24 hours each way, with a net load per train of 1,935 tons. Highway resupply capacity varies between 2,160 and

[ ] 4,320 vehicles and 14,000 to 43,000 tons per 24 hours.


91. **Opposite China.** The Soviets have a long supply line from the western USSR to the Far East and only a modest capability within the region to manufacture military hardware and munitions. Thus, they are heavily dependent on pre-positioned stocks. We believe that stocks of major combat consumables in the area—POL and ammunition—are sufficient to support intense ground force operations for one to two months [ ]

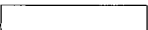
92. Nonetheless, the size of this region, with its limited and vulnerable transportation network, places severe limitations on Soviet capabilities. At present, the Trans-Siberian Railroad is the only complete rail link between the European and Asian portions of the USSR. This double-tracked railway—which has a capacity of 120 trains each way per day—is within a few kilometers of the Sino-Soviet border at some points, however, and is vulnerable to interdiction. Even in peacetime, remoteness, weather, and the line's great length require substantial effort to maintain it at full capacity [ ]


93. Although the Soviets have a large number of airfields in the Far East, their airlift capabilities are low, at least in terms of the number of transport aircraft stationed in the region. A major airlift to resupply the Far East would require the Soviets to borrow heavily from forces now allocated to the western theater [ ]



## V. ASSESSMENT OF READINESS


1. The readiness of the Soviet ground forces in its broadest sense is determined by their ability to convert from a peacetime status to a wartime posture and to carry out assigned missions. Readiness is a function of both the force generation process and the ability to develop combat potential. This in turn is the product of numerous factors that affect the ability of a unit to operate and perform its mission, including the effectiveness of weapons assigned to the unit, the ability of personnel to operate those weapons, and the unit's ability to carry out integrated, coordinated operations. 


2. In peacetime the Soviets maintain a substantial force of "ready" divisions in Eastern Europe and along other sensitive border areas and apparently believe that these units are at least capable of rapidly responding to emergency contingencies on short notice, with little or no mobilization. The bulk of the force structure, however, is maintained in a "not ready" status, requiring large-scale mobilization to achieve wartime authorized manning and equipment levels. Moreover, Soviet sources report that these units would not necessarily be capable of performing their wartime missions immediately after mobilization. 

3. Time is an essential ingredient in the force generation process, and the Soviets have two basic options in preparing their forces for combat. Should circumstances dictate, they could choose (or be forced) to commit their forces as soon as they have completed the alert and mobilization process. Should they opt for this approach, a large portion of the force would not have received a level of training equivalent to the "ready" divisions, and the Soviets would have to accept a degradation in the combat potential of the mobilized force. Alternatively, the Soviets could take a more deliberate, phased approach, allowing time to more fully prepare and train their forces. Although circumstances would determine which option the Soviets chose, we believe they would opt for the more deliberate process when they had some control over time and events. 


4. We cannot predict how much time the Soviets would allocate for postmobilization training to improve

combat potential. 

 to measure the degree to which training, equipment effectiveness, and other factors impact on combat potential. The analysis in this chapter focuses on those situations in which the Soviets have the initiative in planning and preparing their forces for offensive operations at a time and place of their choosing. The chapter assesses the following factors:

- The force generation process required to convert from a peacetime to a wartime posture.
- The time required to generate a fully mobilized force without training.
- The time required to generate a trained force.
- Differences in weapons effectiveness among Soviet divisions.
- The development of combat potential during the force generation process. 

### The Force Generation Process

5. The Soviets have developed an orderly, systematic process to convert their forces from peacetime to wartime status. The process described below is not an emergency reaction executed in response to an enemy attack or threatened attack. Rather, it would be employed to prepare carefully and thoroughly for offensive operations in a mid-to-high-intensity combat environment such as that expected in Europe against NATO. The process would be designed to ensure that units are brought up to sufficient manpower, equipment, and training levels to engage in effective operations. 

6. The deliberate, phased, and time-consuming force generation process described in this chapter differs from that, in response to an enemy attack, often discussed in Warsaw Pact writings. The Soviets train extensively for this latter case situation, and they have developed elaborate plans for rapid mobilization and deployment of their forces, including "not ready" units, with little or no time allocated for training. These plans are to be implemented in the event of the threat of an attack, an

enemy attack, or other situations in which the Soviets do not control the timing of events.

7. Despite their apparent worst case mentality, the Soviets generally believe that a period of tension will precede hostilities, and in fact they plan to covertly increase the readiness of their forces during training exercises before hostilities. The period of tension envisaged as preceding a war varies from several weeks to several months and normally allows adequate time for units to mobilize, train, and make other preparations for war.

8. Historically, the Soviets also have recognized the need for, and have taken the time necessary for, postmobilization training and preparation. In the latter stages of World War II, mobilized troops and units received months of training prior to commitment on the western front, and newly formed divisions trained for four to six months in the interior of the USSR. Preparations for the invasions of Czechoslovakia and Afghanistan and contingency preparations during the Polish crisis similarly included extensive preparations and training before and after mobilization.

9. Force generation is a process that takes place over time, starting with a unit's peacetime status and ending when full combat readiness has been achieved. The time required to generate a force for combat is the sum of the time necessary to alert, disperse, mobilize, train, move, and accomplish final preparations and deployments. The following discussion assesses the time necessary to alert the force; plan systematic and comprehensive attack options; mobilize and assemble required personnel; remove equipment from storage; receive equipment not authorized in peacetime; deploy to dispersal areas with combat-ready command and control structures; and conduct necessary training. Those elements of the process involving movement of the force to its area of employment are scenario dependent and are not considered.

10. **Alert, Dispersal, and Mobilization.** The mechanism for generating the force is the formal alert system that involves the transition of units through the four alert stages and the attainment of a full wartime personnel and equipment status (see chapter II, paragraph 10). The time required to execute measures associated with the alert stages varies. In an emergency, such as a reaction to a surprise attack, an attempt would be made to mobilize rapidly, declaring full

combat readiness directly from constant combat readiness, and accomplish required alert measures on compressed time lines. Under such circumstances there might be confusion and chaos. Under less extreme circumstances the process would be accomplished gradually and methodically, and units would be given sufficient time at each alert stage to fully accomplish specified tasks before the next stage is declared. Should the element of surprise be lost at any point, the Soviets can accelerate the process. Their writings clearly indicate that time requirements vary directly with the enemy threat.

11. In overall terms, the mobilization of Soviet ground formations and units involves three hierarchical force structure elements, each with related but differing alert, dispersal, and mobilization requirements:

- The tank, motorized rifle, and airborne divisions provide the basic combat maneuver force and have varied mobilization availability times depending on their peacetime manning levels.
- The combat divisions are supported by a variety of nondivisional combat support and service support elements maintained at varied readiness levels.
- Together the combat and support forces are organized and subordinated under an army and front command and control structure that is not fully developed in peacetime.

12. **Division Mobilization.** The time required for Soviet divisions to advance through the four alert stages and to complete mobilization would vary according to peacetime manning status. On the basis of a detailed "critical path" analysis of each of the six types of Soviet divisions,<sup>1</sup> we believe Soviet divisions generally could be alerted and could complete mobilization in the time shown in table V-1:

- All Soviet airborne divisions, except the one training division, are maintained in a full-strength ready status and could be alerted, vacate

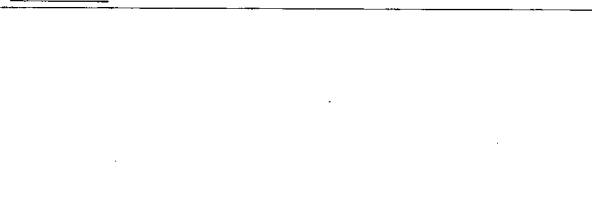


Table V-1

**Estimated Mobilization Time for Soviet Divisions**  
(days, rounded to nearest half day)

Type of Division	Expected Time <sup>a</sup>	Standard Deviation <sup>a</sup>	90-Percent Probability <sup>a</sup>
Full-strength ready	2.0	0.231	1.5-2.5
Reduced-strength ready I	2.5	0.291	2.0-3.0
Reduced-strength ready II	3.5	0.394	3.0-4.0
High-strength cadre	4.5	0.459	3.5-5.0
Low-strength cadre	5.5	0.551	4.5-6.5
Mobilization base	8.0	0.669	7.0-9.0

their peacetime garrisons, and move to dispersal airfields within 25 to 40 hours.

- Within one and a half to two and a half days, the 31 full-strength ready tank and motorized rifle divisions could complete in-garrison preparations, vacate their garrisons, and move to nearby dispersal areas. At this point these divisions would be fully prepared for commitment to combat.
- The 42 reduced-strength ready divisions could complete mobilization and disperse within two to four days. Although their proficiency would be less than that of full-strength ready divisions, we believe these divisions would be at least minimally prepared for commitment to combat in a mid-to-high-intensity environment.
- The 103 cadre divisions could complete the alert, dispersal, and mobilization process within three and a half to six and a half days, but would require additional training to increase their proficiency to a level minimally sufficient for offensive operations in a mid-to-high-intensity environment.
- The 25 mobilization base divisions could mobilize in seven to nine days, but would require extensive preparation and training before combat.

13. **Nondivisional Units.** The Soviets must mobilize a wide variety of nondivisional units to establish a wartime force structure. These units are assigned at

front and army level and are essential to the support and sustenance of Soviet offensive operations. These units include artillery, tactical surface-to-surface missile, engineer, signal, chemical defense, intelligence, electronic warfare, air defense, and logistic support organizations. All nondivisional units present in the peacetime structure of the groups of forces are assessed as full-strength ready. In addition, air assault brigades, Scud and Scaleboard brigades, SA-4 brigades, and independent tank brigades and regiments throughout the USSR generally are manned at the full-strength ready level. Other support and rear service units are kept at lower manning levels in peacetime (see table V-2):

- Signal regiments that would support fronts and armies are manned at the reduced-strength ready level. Signal battalions that would support an army corps are manned at high-strength cadre level and would expand to regiments in wartime.
- Nondivisional ponton bridge regiments and engineer brigades are manned at the high-strength cadre level, as are multiple rocket launcher brigades and regiments. Motor transport brigades and regiments and logistic support brigades are manned at either the high- or low-strength cadre level.

Table V-2

**Soviet Manning Patterns for Nondivisional Units**

**Full-strength ready** (manning at 95-100 percent)

Air assault brigades  
Scud and Scaleboard brigades  
SA-4 brigades  
Independent tank regiments and brigades

**Reduced-strength ready** (manning at 55-85 percent)

Signal regiments (army/front level)

**Cadre** (manning at 5-40 percent)

Signal battalions (corps level)  
Ponton bridge regiments  
Engineer brigades  
Multiple rocket launcher brigades/regiments  
Logistic support brigades  
Motor transport brigades/regiments  
Artillery and antiaircraft divisions  
Artillery brigades/regiments (army level)  
Heavy artillery brigades  
Separate antitank brigades/regiments  
Chemical defense regiments/battalions  
Traffic control brigades

— The following units usually are manned at low-strength cadre level: artillery and antiaircraft divisions, artillery brigades and regiments subordinate to armies, heavy artillery brigades, separate antitank brigades and regiments, chemical defense regiments and battalions, and traffic control brigades. Artillery regiments subordinate to corps in peacetime are usually mobilization bases, consisting of stockpiled weapons (usually older models) and a small caretaker unit.

14. Overall, although we are less certain regarding nondivisional units than we are regarding divisions, we believe nondivisional support units would require from 11 hours to more than six days to complete the alert, dispersal, and mobilization process. (See table V-3.) We assume that nondivisional units would require roughly the same amount of time as divisions to accomplish like functions. Thus, the time for a low-strength cadre division and a cadre nondivisional unit

to complete alert, dispersal, and the preparation of equipment is the same.

15. *Command, Control, and Communications Structure.* Upon mobilization, divisions and nondivisional units would be integrated into an army- and front-level command and control structure prior to commitment. The Soviets recognize the importance of the command and control system and believe that it should be maintained at a level of readiness somewhat higher than that of its subordinate troop units. We estimate it would require about three to five days to fully establish the front/army command and control structure of a front formed in the groups of forces in Eastern Europe. In the internal military districts of the USSR, which have to mobilize and train supporting units, it would take roughly seven to 10 days to establish a full front command and control structure. It is likely that much of this process would be undertaken covertly and in advance of the more overt divisional preparations.

**Table V-3**  
**Estimated Mobilization Times for Soviet Nondivisional Units**  
(hours)

Type of Unit	Estimated Time <sup>a</sup>	90-Percent Probability
Air assault brigades	19.5	15.1-24.0
Scud brigades	17.4	13.9-20.8
Scaleboard brigades	11.1	8.1-14.2
SA-4 brigades	11.1	8.1-14.2
Independent tank brigades/regiments	18.0	14.3-21.8
Helicopter regiments/squadrons	19.5	15.7-23.3
Signal regiments/front/army	27.9	22.7-33.1
Signal battalions/corps	46.2	37.2-55.2
Ponton bridge regiments	55.5	45.7-65.2
Engineer brigades	55.5	45.7-65.2
Multiple rocket-launcher brigades/regiments	48.7	38.5-58.9
Motor transport brigades/regiments	59.5	49.4-69.5
Logistic support brigades	59.5	49.4-69.5
Maintenance regiments/battalions	55.5	45.7-65.2
Artillery divisions	133.1	111.0-155.2
Artillery brigades/regiments/army	66.0	54.5-77.4
Heavy artillery brigades	74.0	62.5-85.4
Antiaircraft artillery divisions	133.1	111.0-155.2
Antiaircraft artillery brigades	48.9	39.6-58.2
Antitank brigades/regiments	54.9	44.4-65.5
Motor transport brigades/regiments	65.6	55.5-75.8
Logistic support brigades	65.6	55.5-75.8
Chemical defense regiments/battalions	63.0	53.2-72.7
Traffic control brigades	59.6	50.2-69.1
Artillery regiments/corps	93.6	72.5-114.7
Hospital base	85.5	65.4-105.6

<sup>a</sup> Rounded to nearest tenth.

16. Front-level headquarters do not exist in peacetime, and in wartime they would be organized from the headquarters elements of groups of forces or military districts. We believe that those headquarters designated to form wartime fronts have the necessary personnel in peacetime to establish the wartime front staff. Front staffs are normally supported by a front signal regiment or brigade which establishes a front command post communications center; a rear CP signal regiment which provides communications for the rear services; and numerous radio-relay, wire and tropospheric-scatter battalions that provide multichannel communications among the CPs and to subordinate units. In addition, a security and service regiment provides transport, security, and logistic support for the staff. These supporting units are maintained at full strength in the groups of forces, but at reduced-strength ready or cadre levels in the USSR. [redacted]

17. The Soviets maintain tank and combined-arms armies in peacetime with staffs controlling subordinate units. Armies generally are supported by a command post signal regiment, a signal battalion, and a security and service battalion. As with front units, in the groups of forces these units are maintained at full-strength and at reduced-strength or high-strength cadre levels in the USSR. [redacted]

18. In peacetime, the headquarters of Soviet military districts, groups of forces, and armies maintain numerous facilities to support a smooth transition to a wartime structure. Hardened command posts, manned by small shifts of duty personnel and located near garrison headquarters, provide sheltered locations to which staffs can deploy and control the mobilization and dispersal process. These wartime CPs have functioning radio, radio-relay, and landline communications to garrison locations and to superior and subordinate CPs. In addition, the groups of forces in Germany (GSFG) and Czechoslovakia (CGF) maintain complex fixed radio-relay systems including many bunkered sites that can be rapidly converted to wartime front-level communications structures. Moreover, new mobile signal equipment entering the Soviet inventory enhances the ability of the front to rapidly establish long-range multichannel communications. [redacted]

**Training**

19. To prepare for offensive operations—and if time were available—individual Soviet units could

conduct postmobilization training to improve combat proficiency. Most reduced-strength or cadre units would require at least some of the following types of training after they had completed mobilization and were at full strength:

- **Individual refresher training** to reacquaint previously trained reservists with their military specialties and crew-served weapons and equipment.
- **Unit training and exercises** to perfect individual skills, forge unit cohesion and integration, and develop a unit's capability to carry out tactical maneuvers and operations.
- **Staff training and command post exercises** to enhance command and staff proficiency and to rehearse and perfect planned operations. [redacted]

20. The training for individual divisions and non-divisional units would vary according to their intended missions. Our analysis focuses on the training that would be required by units earmarked for offensive operations in a mid-to-high-intensity combat environment such as that expected in Europe.<sup>2</sup> Consequently, we focus on the proficiency required to conduct complex operations such as those of an operational maneuver group, penetrating a prepared defense, or conducting a meeting engagement with a combined-arms enemy force on an integrated nuclear, chemical, or conventional battlefield. [redacted]

21. The mission proficiency of the "ready" divisions at the completion of mobilization meets or exceeds the minimum proficiency demonstrated by a GSFG division at the start of its training cycle. These divisions are prepared to fight in a time-constrained, emergency situation and could achieve levels of mission proficiency acceptable for commitment to mid-to-high-intensity combat with little or no additional training. [redacted]

22. The divisions considered "not ready" (cadre and mobilization bases), on the other hand, would have a mission proficiency after mobilization far below that of the GSFG division at any point in its training cycle.





The Soviets can tolerate the risk of keeping a large part of their force structure at such a low level of proficiency because:

- They expect sufficient warning and preparation time to conduct the training necessary to raise proficiency levels.
- Many "not ready" units probably would not be committed to combat until weeks into the war, allowing time for the needed training.
- Some "not ready" units probably are not intended for operations in a mid-to-high-intensity combat environment. They may be employed as occupation troops in conquered enemy territory or to guard lines of communication, vital installations, or other rear areas in Pact territory. "Mop-up" operations after enemy main forces have been defeated may also require lesser proficiency.

23. **Training Goals.** In assessing the training level and proficiency of Soviet divisions, we use the GSFG division as a yardstick. The GSFG division is the most proficient in the Soviet force structure, and we assume that at the completion of its semiannual training cycle it meets Soviet standards for commitment to offensive operations in a mid-to-high-intensity environment. In our analysis of the semiannual training cycle of the GSFG division, we have established three milestones that we use as the basis for assessing the status of other divisions (see inset).

### Training Milestones of the Group of Soviet Forces in Germany (GSFG)

**Minimum Proficiency.** The lowest point of unit proficiency in the GSFG training cycle, which occurs at the time of troop rotation. About 20 percent of the divisions' manpower consists of untrained recruits or inexperienced conscript NCOs/specialists fresh from training units. We believe that, given a choice, the Soviets would not commit divisions at this low level of proficiency. If confronted with an enemy surprise attack, or a situation in which the Soviets did not have control of events, however, such divisions would be committed to combat.

**Minimum Standard for Commitment to Offensive Operations.** About three months after troop rotation, new conscripts have completed their basic training and have been integrated into their units; company and battalion level training has begun. At this point, we believe the divisions have completed sufficient training and attained sufficient cohesion for commitment to offensive combat.

**Maximum Proficiency.** The proficiency level attained by the GSFG division at the completion of its semiannual training program when all required training, including regimental or division exercises, is complete. At this point we judge that the highest level of proficiency of any Soviet division is attained.

24. The amount of training required by Soviet divisions to attain GSFG standards varies from four to 45 days, depending on peacetime manning levels and the proficiency level desired (see table V-4). Training

**Table V-4**

**Training Required for Soviet Divisions To Meet GSFG Standards**  
(days, rounded to nearest half day)

Type of Division	Minimum Mission Proficiency	Minimum Mission Proficiency for Offensive Operations	Maximum Mission Proficiency
Full-strength ready	0	0	0
Reduced-strength ready I	0	0	4-5
Reduced-strength ready II	0	4-5	19.0-30.5 <sup>a</sup> 26.5-38.5 <sup>b</sup>
High-strength cadre	8.0-17.5	19.0-30.5	29.5-43.0
Low-strength cadre	9.5-19.5	19.0-30.5	29.5-43.0
Mobilization base	12.0-22.0	21.5-33.0	32.0-45.5

<sup>a</sup> Divisions with cadre battalions only.

<sup>b</sup> Divisions with cadre regiments and battalions.

generally would begin with several days of individual refresher training and then build through varying periods of unit training and exercises at company, battalion, regiment, and division level. Staff training would be undertaken concurrently. "Ready" divisions would require little, if any, training to achieve minimum proficiency for offensive operations. "Not ready" divisions, on the other hand, would require from 19 to more than 30 days to achieve the same standard. [ ]

25. If the training were undertaken after the divisions were fully mobilized, their availability for combat would vary from one and a half days to more than 50 days, depending on the type of division and proficiency level desired (see table V-5). The Soviets, however, have a number of options that could reduce the amount of postmobilization training and thus speed up the divisions' availability: portions of the training program could be completed before full division mobilization, or the Soviets could incrementally increase the authorized manning of selected divisions before full-scale mobilization, as they did in preparing for the invasion of Afghanistan. These divisions could then accomplish more extensive training before full mobilization. Alternatively, a division's battalions or regiments could be mobilized sequentially and reservists released upon completion of their training. Such a division, if mobilized shortly thereafter, could attain an acceptable mission proficiency with little or no additional training. Some Soviet divisions apparently did this during the Polish crisis in 1980-81 [ ]

26. In summary, mobilization and training will not necessarily occur after a forcewide M-day has been declared. The alerting and preparation of individual divisions may occur in a phased and unobtrusive manner well before the declaration of general mobilization. (See inset for historical precedents.) If the Soviets prepare individual force elements incrementally, the initial phases may be difficult to distinguish from normal peacetime training and exercises. [ ]

#### Historical Precedents in Soviet Training Practices

**World War II.** Historically, the Soviets have recognized the necessity of providing training after the mobilization or formation of units. At the beginning of World War II they were forced to commit poorly trained and prepared units to stop the German invasion. Later in the war, however, mobilized troops and units received months of training before commitment on the western front, and newly formed divisions trained four to six months. Before initiating major offensives, such as the Berlin operation, units received replacements to bring them up to strength and were directed to conduct training for up to 20 days. When units were withheld from combat and assigned to the "Reserve of the Supreme High Command," their preparation included 30 to 40 days of training. [ ]

**Czechoslovakia.** Before the invasion of Czechoslovakia the Soviets made a clear distinction between the preparation and training of "ready" and "not ready" divisions. The invasion was carried out by "ready" divisions that were mobilized up to four months before the invasion and moved to concentration areas near

**Table V-5**  
**Cumulative Force Availability Time Estimates for Soviet Divisions**  
(days—90-percent probability range—rounded to nearest half day)

Division Type	Alert, Dispersal, and Mobilization	Minimum Mission Proficiency <sup>a</sup>	Minimum Proficiency for Offensive Operations <sup>a</sup>	Minimum Mission Proficiency <sup>a</sup>	Maximum Mission Proficiency <sup>a</sup>
Full-strength ready	1.5-2.5	1.5-2.5	1.5-2.5	1.5-2.5	1.5-2.5
Reduced-strength ready I	2.0-3.0	2.0-3.0	2.0-3.0	6.5-7.5	6.5-7.5
Reduced-strength ready II	3.0-4.0	3.0-4.0	7.0-9.0	30.0-42.0 <sup>b</sup>	22.5-34.0 <sup>c</sup>
High-strength cadre	3.5-5.0	12.5-22.0	23.0-35.0	34.5-48.0	34.5-48.0
Low-strength cadre	4.5-6.5	15.0-25.5	23.0-36.0	35.5-49.0	35.5-49.0
Mobilization base	7.0-9.0	20.0-30.5	29.0-41.5	40.0-53.5	40.0-53.5

<sup>a</sup> Includes time for alert, dispersal, and mobilization.

<sup>b</sup> Divisions with cadre regiments and battalions.

<sup>c</sup> Division with cadre battalions only.

Czechoslovakia. The training varied from none at all to individual refresher training, small-unit drills, and exercises. Several cadre divisions, also mobilized during the Czechoslovak crisis, did not participate in the invasion but apparently served as a reserve for the invasion force. In marked contrast to the "ready" divisions, they engaged in a comprehensive postmobilization training program lasting 30 to 40 days and culminating in a division field training exercise [redacted]

**Afghanistan.** Two of the three cadre divisions used in the invasion of Afghanistan, the 5th Guards Motorized Rifle Division and the 108th Motorized Rifle Division, also began preparations months beforehand, probably in response to a Soviet decision to upgrade force readiness in the area as the situation in Afghanistan deteriorated in the summer and fall of 1979. Both divisions apparently were raised from cadre status to reduced-strength ready II at least six months before the invasion and began a training program appropriate to the higher status. In December they mobilized reservists to attain full-strength ready status. The divisions entered Afghanistan in late December, but for a month thereafter their personnel continued to train and set up base facilities. At the end of January their reservist personnel were released and replaced by trained active service personnel drawn from throughout the Soviet forces. Only then were units committed to combat operations. [redacted]

By contrast, a third division, the 201st Motorized Rifle Division, conducted what was in essence an emergency mobilization in late December and experienced many difficulties. The division moved to Termez and trained. At the end of January 1980, its reservists were replaced by active service troops from elsewhere in the USSR, and two of its regiments were replaced by units drawn from the western USSR. The division then entered Afghanistan in the first half of February. [redacted]

**Poland.** The Soviets also apparently took a deliberate time-phased approach during 1980 in preparing for possible military action in Poland. The intensity and level of training in the three MDs bordering Poland (Baltic, Belorussian, and Carpathian) reflected an increase over that normally expected and was not paralleled in other military districts. From September to December 1980 the Soviets prepared 13 selected ready and cadre divisions subordinate to the 11th Guards, 13th, and 28th Armies in the Baltic, Belorussian, and Carpathian Military Districts and increased their readiness status by mobilizing and training and then demobilizing selected elements. Preparatory exercises and training were staggered among armies. While one army was exercising, another was in a posttraining period of maintenance and reduced activity, and a third was preparing to exercise. This staggered preparation enabled the Soviets to increase the readiness of a contingency force over a period of months without fielding the entire force. [redacted]

## Weapon Effectiveness

27. Analysis of variations in the weapons inventories of Soviet divisions—both quantitative and qualitative—indicates that there are substantial differences in the potential combat power of the divisions. Assessed in terms of weighted equipment value (WEV)<sup>3</sup> weapons effectiveness varies widely within the ground forces according to the type of division and the region or theater of military operations (TVD) in which it would operate [redacted]

28. In general, tank divisions generate higher weapon effectiveness scores than motorized rifle divisions because they have more and/or better tanks (see table V-6). Moreover, equipment effectiveness scores for motorized rifle divisions vary more widely than those for tank divisions, reflecting the greater uniformity of the quality of combat equipment held in tank divisions. The variance in equipment effectiveness between tank and motorized rifle divisions is most pronounced in cadre divisions and mobilization bases. [redacted]

29. The major variations in weapons effectiveness occur between the "ready" and "not ready" divisions and on a regional basis. "Ready" divisions generally are better equipped, with newer, more capable weapon systems, and normally have a full complement of weapons. "Not ready" divisions, particularly low-strength cadre and mobilization base divisions, are equipped with older weapons and often do not meet current organizational inventory standards [redacted]

30. On a regional basis, the Western TVD, facing NATO's Central Region, contains the "lion's share" (30 percent) of the motorized rifle and tank divisions in the Soviet ground forces, and typically its maneuver divisions are better equipped. Soviet divisions opposite China in the Far Eastern TVD, in aggregate, are the

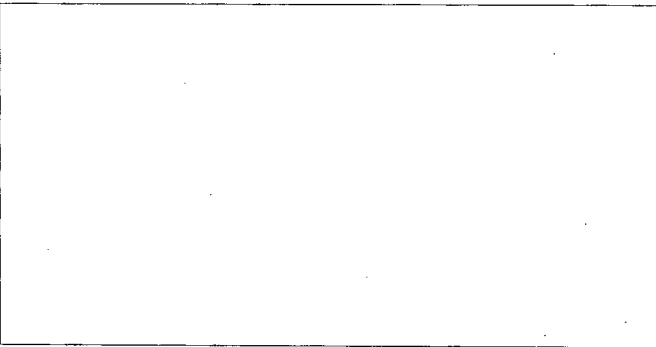


Table V-6

## Average Weighted Equipment Value of Soviet Maneuver Divisions, End of 1981

Division Manning Category and Type		Average Weighted Equipment Value (WEV)					
		Western TVD	Northwestern TVD	Southwestern TVD	Southeastern TVD	Far Eastern TVD	Strategic Reserve
Full-strength ready	MRD	699.5	—	658.5	580.0	—	—
	TD	699.3	—	619.5	—	690.0	—
Reduced-strength ready I	MRD	685.8	437.3	—	—	633.7	616.0
	TD	727.0	—	—	—	682.0	—
Reduced-strength ready II	MRD	—	—	—	458.8	584.6	—
	TD	725.0	—	546.0	—	651.0	573.0
High-strength cadre	MRD	646.0	267.5	596.0	459.3	537.5	496.5
	TD	625.0	—	555.7	—	574.0	562.0
Low-strength cadre	MRD	510.2	271.3	423.8	379.5	515.6	461.0
	TD	677.0	—	550.0	599.0	—	507.0
Mobilization base	MRD	272.0	260.3	331.0	159.0	346.8	370.8
	TD	475.0	—	290.5	—	—	—

next best equipped in the force structure, followed by the Southwestern TVD, the Strategic Reserve, and the Southeastern and Northwestern TVDs. Divisions opposite areas of lesser threat clearly have a lower priority for more modern and effective weapon systems.

### Overall Combat Potential

31. Combat potential, simply defined, is the ability of a unit or force to carry out its wartime mission. It is a function of numerous factors which affect the ability to operate and execute assigned missions. These factors include mission proficiency; equipment effectiveness; command, control, and communications, and intelligence; leadership and morale; and the logistic base. Recognizing that the three last-named are important but largely unquantifiable factors—particularly in assessing opposing forces—our assessment of the overall combat potential of Soviet divisions focuses on the key first two factors—mission proficiency and weapon effectiveness. Although we assume weapon effectiveness remains static during the force generation process, mission proficiency—and thus overall combat potential—will increase as training is conducted prior to commitment. Combat potential, therefore, is directly dependent on the degree to which a unit develops its mission proficiency as well as the effectiveness of its combat equipment: the more time allocated during

the force generation process to training, the greater the payoff in terms of combat potential.

32. The mean combat potential values depicted in table V-7 reflect the substantial differences between types of divisions and among theaters, as well as the multiplicative effect of training after mobilization. Upon mobilization, full-strength ready and reduced-strength ready I divisions require little or no training. Reduced-strength ready II, cadre, and mobilization base divisions clearly enhance their combat potential after postmobilization training. This gain in combat potential varies by type, division, and theater.

33. The motorized rifle and tank divisions in the Western TVD generate the highest overall combat potential, due primarily to the concentration of more modern weapon systems and the large numbers of full-strength ready divisions. Data in table V-8 depict the overall gain in combat potential by theater when training is provided. This gain varies from 30 percent in the Western TVD to 133 percent in the Strategic

Table V-7

**Average Divisional Combat Potential for Soviet Divisions  
Following Alert and Mobilization (CP1) and After Completion of Training (CP2)**

Division Manning Category and Type		Western TVD		Northwestern TVD		Southwestern TVD		Southeastern TVD		Far Eastern TVD		Strategic Reserve	
		CP1 <sup>a</sup>	CP2 <sup>b</sup>	CP1 <sup>a</sup>	CP2 <sup>b</sup>	CP1 <sup>a</sup>	CP2 <sup>b</sup>	CP1 <sup>a</sup>	CP2 <sup>b</sup>	CP1 <sup>a</sup>	CP2 <sup>b</sup>	CP1 <sup>a</sup>	CP2 <sup>b</sup>
		Full-strength ready	MRD <sup>c</sup>	699.5	699.5	—	—	658.5	658.5	580.0	580.0	—	—
	TD <sup>d</sup>	699.3	699.3	—	—	619.5	619.5	—	—	690.0	690.0	—	—
Reduced-strength ready I	MRD	638.0	638.0	406.7	406.7	—	—	—	—	589.4	589.4	572.0	572.0
	TD	676.0	676.0	—	—	—	—	—	—	634.0	634.0	—	—
Reduced-strength ready II	MRD	—	—	—	—	—	—	306.8	399.0	391.6	508.7	—	—
	TD	486.0	631.0	—	—	366.0	475.0	—	—	436.0	566.0	384.0	499.0
High-strength cadre	MRD	258.0	556.0	107.0	230.0	240.7	518.0	183.7	395.1	215.0	462.4	198.5	427.0
	TD	250.1	537.3	—	—	222.3	477.7	—	—	230.0	494.0	225.0	483.0
Low-strength cadre	MRD	158.5	448.8	84.0	238.3	146.8	417.8	117.7	333.8	159.9	453.6	143.0	405.7
	TD	210.0	596.0	—	—	170.0	483.5	186.0	527.0	—	—	157.0	446.0
Mobilization base	MRD	32.5	239.5	31.0	229.3	39.7	291.3	19.0	140.0	41.5	305.5	44.4	326.6
	TD	57.0	418.0	—	—	34.5	255.5	—	—	—	—	—	—

<sup>a</sup> Combat potential without training.

<sup>b</sup> Combat potential with training.

<sup>c</sup> Motorized rifle division.

<sup>d</sup> Tank division.

Note: All Soviet units have a theoretical combat potential (mission proficiency score times weapon effectiveness value) when they complete mobilization. The average combat potential of divisions by type and TVD immediately after mobilization is reflected in the "combat potential without training" (CP1) column. Except under extreme circumstances, however, we believe the Soviets will attempt to increase a unit's mission proficiency by providing training. In the table, "combat potential with training" (CP2) reflects the average impact on overall combat potential if divisions are brought up to the GSFC division's minimum standard for offensive operations (see table V-4 and annex D).

Table V-8

**Theoretical Increase in Soviet Divisional  
Combat Potential by Theater<sup>a</sup>**

TVD	Aggregate Combat Potential Upon Mobilization	Aggregate Combat Potential After Training	Percent of Change <sup>b</sup>
Strategic Reserve	3,200	7,400	133
Southwestern TVD <sup>c</sup>	6,250	12,450	99
Southeastern TVD	6,050	11,100	84
Northwestern TVD	1,750	2,900	66
Far Eastern TVD	16,750	26,800	60
Western TVD <sup>c</sup>	27,550	35,850	30


<sup>a</sup> Divisional combat potential is the aggregate combat potential of all maneuver divisions within a theater of military operations.

<sup>b</sup> The change in combat potential is influenced chiefly by the ratio of "ready" and "not ready" divisions within a theater. Essentially, the greater the number of "ready" versus "not ready" divisions, the fewer the number of divisions that need training; thus the lower percentage change in combat potential.

<sup>c</sup> Does not take account of non-Soviet Warsaw Pact forces, which, if included in the TVD force, would increase the score.



Reserve. The degree of improvement in a TVD's combat potential is largely explained by the ratio of "not ready" to "ready" divisions. "Not ready" divisions require differing amounts of training to raise their mission proficiency. "Ready" divisions, however,

require little or no training and thus reach a minimum acceptable combat potential upon completion of alert and mobilization. Table V-8 indicates that training is less important in the Western TVD, and to varying degrees more significant in other TVDs. 

## VI. IMPLICATIONS

1. The Soviets maintain a large and impressive ground force structure that reflects the vast dimensions of their nation, the scope of its military interests, and the nature of combat anticipated. The mixture of ground force units which, by Soviet definition, are considered "ready" or "not ready" for combat suggests—and our research confirms—a major difference in the peacetime status and readiness posture of units in these two broad readiness categories [redacted]

2. More than one-half of the 185 active divisions as well as the 25 mobilization base divisions and many support units are maintained in a "not ready" status in peacetime, and the Soviets must rely on the mobilization of large numbers of reservists to achieve wartime manning levels. Substantial numbers of transport vehicles must also be mobilized to field and sustain this force. In some respects, this "not ready" force offers advantages for the Soviets. It provides a known force structure for planning purposes and can be rapidly expanded to wartime manning and equipment authorizations. It also allows those manpower and equipment resources that would be needed during wartime to be employed in the civilian economy in peacetime. There are, however, definite disadvantages from the force readiness standpoint. The low peacetime manning of "not ready" units severely limits the Soviets' training programs. Furthermore, their reserve system does not produce cohesive and effective units upon mobilization. Individual reservists are infrequently called up for training and rarely serve consecutive tours in the same unit. Training provided is of uneven quality at best. In short, the large "not ready" or skeletal element of the force structure requires substantial preparation to overcome deficiencies in peacetime manning, equipment, and training, as well as shortcomings in the Soviet reserve system. [redacted]

3. In regard to equipment, the Soviets have a design, deployment, and support philosophy that emphasizes readiness for combat in the initial stages of war. The combination of rugged, reliable equipment and a usage pattern that emphasizes conservation of equipment, means that the Soviets would enter com-

bat with a relatively "young" and reliable fleet of combat vehicles. Nevertheless, peacetime conservation of large quantities of weapons and equipment may distort the demand for repair and maintenance that would be expected in wartime. Soviet forces may well be ill prepared to cope with high levels of battle damage and the requirements that would be placed on the maintenance repair and supply system in a sustained, high-attrition conflict. However, the Soviet practice of echelonment, allowing replacement of units, could enhance sustainability. [redacted]

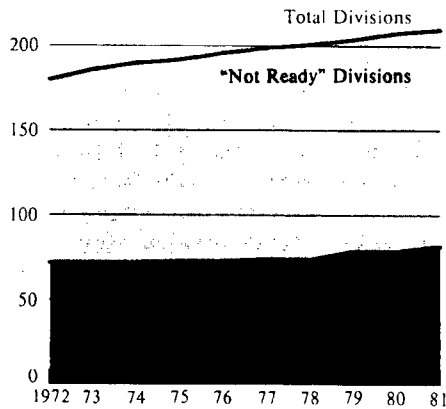
4. The Soviets have available a large supply of ammunition, POL, and spare parts, calculated at consumption rates applicable to mid-to-high-intensity combat. Much of this stockpile is held in rapidly relocatable stocks in forward areas and would be readily available to Soviet forces early in a conflict. The availability and reliability of equipment and the supply of ammunition, POL, and spare parts should not be a significant constraint on the immediate readiness of the force in any theater. The ability of the logistic support structure to sustain forces in prolonged combat will vary from one theater to another, however. [redacted]

### Readiness Trends

5. While the Soviets have continued a pattern of steady ground forces growth over the past 10 years (some 30 new divisions or mobilization bases have been created), there has not been any appreciable change in the overall readiness posture. On the contrary, between 1972 and 1981 there was a drop of about 4 percent in the proportion of "ready" to "not ready" divisions in the forces (see figure VI-1). Although a few divisions have been upgraded from "not ready" to "ready" status, most new divisions either have been manned at cadre levels or are being maintained as inactive mobilization base divisions. [redacted]

6. We do not anticipate a major, permanent change in the readiness posture of the Soviet forces over the next five years unless Moscow perceives a substantial and lasting alteration of the threat in one region or

**Figure VI-1**  
**"Ready" and "Not Ready" Maneuver Divisions**  
**in the USSR, 1972-81**



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another. Any effort to substantially upgrade their readiness posture would be problematic. The Soviets will continue to face a situation of dwindling manpower resources through the end of the decade, and a major increase in peacetime manning (except on an emergency basis by recalling reservists) in one region might require consequent reductions in other regions.

#### Forcewide Readiness and Combat Potential

7. The Soviets appear to have systematic and effective procedures for mobilizing their forces. However, the completion of the alert and mobilization process would not provide a completely combat-ready force. On the basis of our assessment of the combat potential of "ready" and "not ready" divisions, we believe that, except under extreme circumstances, the Soviets would allocate additional time for training prior to committing units to offensive operations in a mid-to-high-intensity combat environment.

8. The Soviets do not necessarily intend to bring all 210 divisions to full combat readiness prior to the initiation of hostilities. Nonetheless, they could mobilize their entire 210-division force (including the 25

mobilization base divisions)—along with its support and command-and-control structure—within 11 days (see figure VI-2). However, upon completion of alert and mobilization alone, the 210 divisions would have a greatly limited overall combat potential: equal only to 88 GSFG division equivalents.<sup>1</sup> This level of overall force capability represents 42 percent of the total combat potential that could be generated if training were conducted to the minimum level required for offensive operations. Most of this initial force capability would be provided by the 82 "ready" divisions.

9. By completing the training necessary to conduct offensive operations in a mid-to-high-intensity combat environment, the time required to generate the full 210-division force would increase to about 50 days. However, more than 90 percent of the force (194 divisions) would be available 35 days after alert. This expenditure of additional time to train "not ready" divisions up to minimum GSFG equivalent standards for offensive operations would theoretically increase the overall combat potential of the force by 55 percent to some 137 GSFG division equivalents. Table VI-1 illustrates the combat potential generated by tank and motorized rifle divisions in each theater of military operations (TVD) in terms of GSFG division equivalents after completion of mobilization (11 days after initial alert—or A+11) and after completion of training (A+50 days). The Western and Far East TVDs clearly generate the most combat potential, indicating that divisions in these theaters are the best trained and equipped in the force structure.

#### Force Readiness by Theater

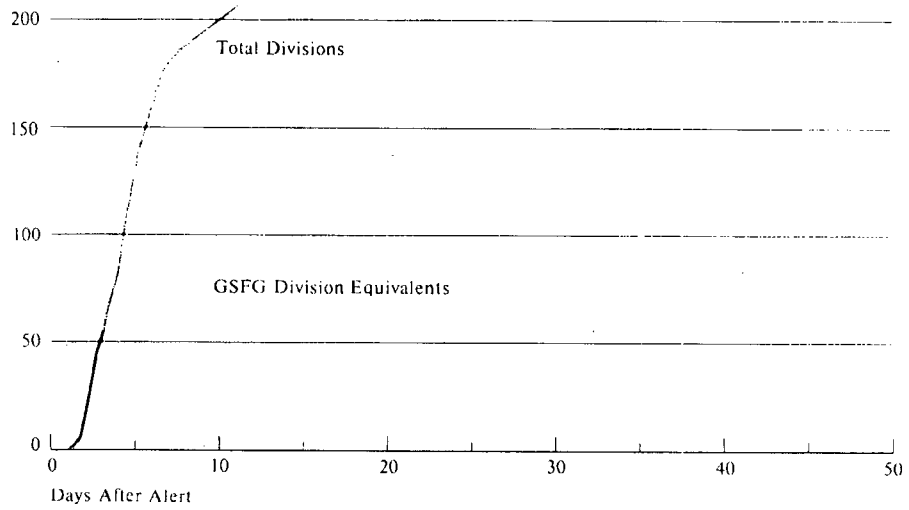
10. The Soviets have structured and deployed their ground forces essentially for theater warfare, and their war planning calls for the division of Soviet and other Warsaw Pact frontiers into TVDs (see figure VI-3). Their basic military strategy is to overwhelm any and all opponents quickly, relying primarily on Pact forces already in place in the theater, and Soviet theater forces, thus, appear to be designed to dominate in each

<sup>1</sup> A GSFG division equivalent is a unit of measurement employed to express each Soviet motorized rifle and tank division's combat potential in terms of the mean combat potential of its counterpart in the Group of Soviet Forces in Germany. Each division's combat potential will be greater than, equal to, or less than that of the mean GSFG division depending on its training status and overall weapons effectiveness (see annex E for methodology employed). (c)



**Figure VI-2**  
**Force Generation Profile for Soviet Divisions: Total Force**

Number of Divisions Available  
Upon Completion of Alert and Mobilization



Upon Completion of Required Training

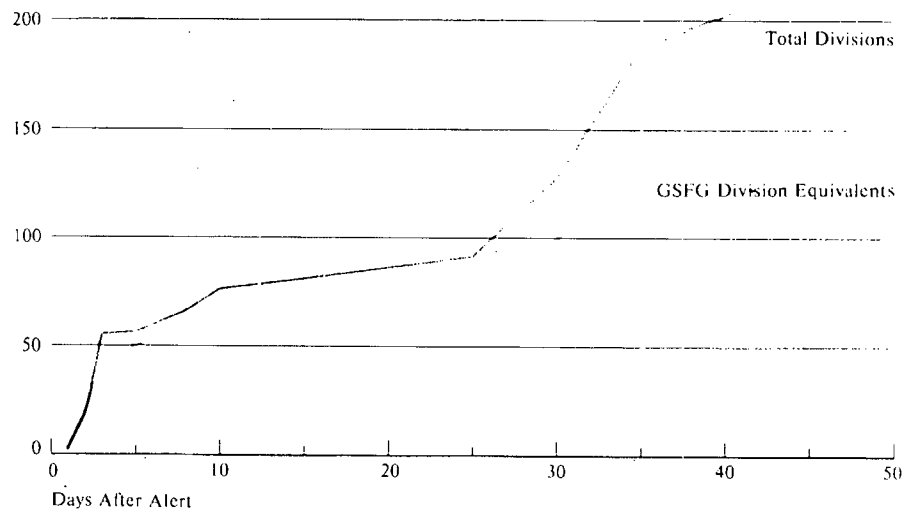


Table VI-1

**Soviet Combat Potential by Theater<sup>a</sup>**  
(Motorized Rifle and Tank Divisions)

Theater of Military Operations (TVD)	Divisions (Tank/MRD) Available	Combat Potential (in GSFG Division Equivalents) at A+11	Combat Potential (in GSFG Division Equivalents) at A+50
Western TVD	62	39	51
Southeastern TVD	29	8.5	15.8
Far Eastern TVD <sup>b</sup>	56	24	38.5
Southwestern TVD	27	9	19.3
Northwestern TVD	10	2.4	4.7
Forcewide <sup>c</sup>	202	88	137

<sup>a</sup> Excludes all non-Soviet Warsaw Pact forces.

<sup>b</sup> Does not include the division in the Kuril Islands.

<sup>c</sup> Includes divisions in the Moscow, Volga, and Ural Military Districts.

TVD independently. Certain specialized units (such as airborne divisions) and some strategic reserve units in the central USSR may be employed to reinforce one TVD or another.

11. Readiness, therefore, is largely a theater problem for the Soviets and is most usefully assessed on that basis. The three Soviet theaters that encompass the bulk of the forces and the majority of the USSR's vast frontier are the Western, Southeastern, and Far Eastern TVDs. Of these, two—the Southeastern and Far Eastern—are composed entirely of Soviet forces.<sup>2</sup> The Western TVD is unique, however, with its buffer zone of East European states and a force structure in which non-Soviet Warsaw Pact (NSWP) ground forces make a heavy contribution—more than half the first-echelon divisions in Central Europe—to the overall theater force.

#### Forces Opposite Central Europe

12. The Soviets believe that a war in Central Europe probably would occur only after a period of heightened tension during which they would take steps to increase the readiness of their forces in the Western TVD. An increase in peacetime readiness preceding a general mobilization probably would be accomplished covertly, with the most detectable steps being accomplished last. We believe that the Soviets

<sup>2</sup> The Far Eastern TVD also encompasses Mongolia, but Mongolian forces would not figure prominently in—if they contributed at all to—Soviet operations in this theater. (c)

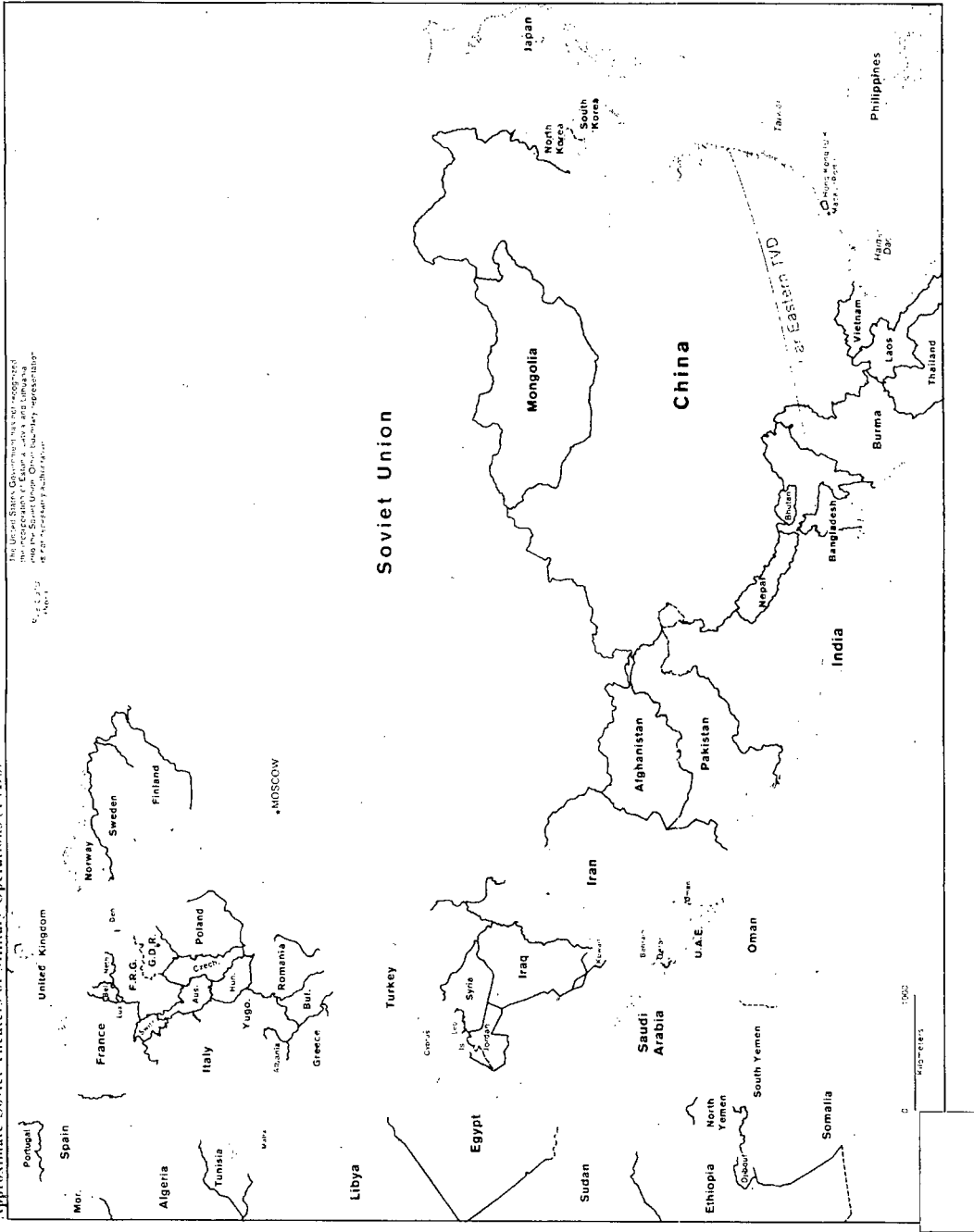
would phase their preparation, bringing various elements of the forces to full combat readiness sequentially.

13. Soviet planning for the Western TVD envisions offensives along three main axes of advance. (See figure VI-4.) To carry out these offensives, the Warsaw Pact, at least initially, could organize its forces into three fronts in the first echelon (the Soviet-East German front, the Soviet-Polish front, and the Soviet-Czechoslovak front), and two fronts from the western USSR in the second echelon (the Belorussian and Carpathian fronts). This five-front posture—with 80 to 90 divisions, of which 60 to 65 would be Soviet—plus naval and tactical air support, probably would fulfill the Soviets' conservative doctrinal preferences. The force would consist of the Soviet and non-Soviet units in East Germany, Poland, and Czechoslovakia, and forces from the Baltic, Belorussian, and Carpathian Military Districts.

14. The Soviet-East German front probably would be the largest in terms of forces and would carry out the main effort (see table VI-2). It most likely would be made up of Soviet forces in East Germany and Poland and East Germany's ground divisions, and would have the task of attacking NATO forces in central West Germany, probably between Hannover in the north and Mannheim in the south. It could face forces from as many as six of NATO's eight corps areas. Major elements of this front also could swing north of Hannover, across the north German plain, although this would require extensive restructuring of the front's logistic base. If the Soviet-East German front's

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Figure VI-3  
Approximate Soviet Theaters of Military Operations (TVDS)



VI-5  
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Figure VI-4  
Warsaw Pact Five-Front Attack Force in the Central Region



main effort were made in a more northerly direction, some of the front probably would be given the responsibility of carrying out offensive operations of sufficient intensity to convince NATO—at least for a time—that the main effort was in the center, to delay a shift in NATO forces to meet the main effort.

15. It is likely that the Soviet-Polish front would be responsible for engaging NATO forces in the area of the two northernmost corps of AFCENT, as well as in Denmark in AFNORTH. We believe that 15 Polish divisions and probably four divisions of the Soviet 11th Guards Army in the Baltic MD would be primarily responsible for this area, but Soviet and East German forces would assume responsibility for defending the area until Polish forces arrive.

16. The majority of the forces in the Soviet-Czechoslovak front most likely would consist of 10 Czechoslovak divisions, although the northern flank of the front probably would be formed by an army

consisting of the five Soviet divisions in Czechoslovakia. The front would have the responsibility of attacking toward the Rhine in an area roughly between Mannheim and the Swiss-German border.

17. Soviet planners could also elect to begin the attack with three fronts before the two reinforcing fronts from the western USSR were in place and available. A phased buildup to three fronts would involve a total of some 50 to 60 divisions, of which about 26 would be Soviet, plus support and tactical air units. It would offer the Soviets a reasonable expectation of an orderly transition to an attack posture that would afford force superiority, sustainability, and the capability to respond to the risks of a wider war. The forces would include all Soviet and most NSWP divisions garrisoned in East Germany, Poland, and Czechoslovakia.

18. *Operational Requirements.* Warsaw Pact theater forces in the Western TVD do not have to be

Table VI-2

Postulated Warsaw Pact Troop List, Western TVD Ground Formations

<b>Soviet-Polish Front (19 divisions)</b>	
Pomeranian Army (Polish)	1 or more Scud brigades
Silesian Army (Polish)	1 or more Scaleboard brigades
Warsaw Army (Polish)	2 or more SA-4 brigades
11th Guards Army (Baltic Military District)	At least 1 attack helicopter regiment
<b>Soviet-East German Front (27 divisions)</b>	
1st Guards Tank Army	8 or more Scud brigades
3rd Shock Army	8 or more SA-4 brigades
20th Guards Army	5 or more attack helicopter regiments
8th Guards Tank Army	1 or more transport helicopter regiments
2nd Guards Tank Army	7 or more ponton bridge regiments/battalions
MD-V Army (East German)	
MD-III Army (East German)	
Northern Group of Forces (NGF) (Army/Corps)	
<b>Soviet-Czechoslovak Front (15 divisions)</b>	
1st Army (Czechoslovak)	At least 1 SA-4 brigade
4th Army (Czechoslovak)	At least 1 attack helicopter regiment
Central Group of Forces (CGF) Army	
<b>Belorussian Front (11 divisions)</b>	
5th Guards Tank Army	Up to 4 Scud brigades
7th Guards Tank Army	1 Scaleboard brigade
28th Army	Up to 5 SA-4 brigades
	1 attack helicopter regiment
	1 transport helicopter regiment
	3 ponton bridge regiments/battalions
<b>Carpathian Front (11 divisions)</b>	
13th Army	Up to 3 Scud brigades
38th Army	1 Scaleboard brigade
8th Army	Up to 3 SA-4 brigades
	1 transport helicopter regiment
	2 ponton bridge regiments or battalions
<b>Available Reserves</b>	
2 airborne divisions	
5 divisions in Baltic MD	
Up to 10 divisions in Kiev MD	

available in their entirety for commitment on D-day. The Soviet concept of echelonment provides for a steady time-phased introduction of fresh forces into battle to sustain an offensive. In the Western TVD, the time-phased introduction of forces into battle would be accomplished by a systematic commitment of echeloned forces. The Pact would initially commit 30 to 45 first-echelon divisions of the first-echelon armies to seize immediate tactical objectives. According to Soviet planning factors, second-echelon divisions of the first-echelon armies would be committed after the immediate army objectives, which usually lie at a depth of 100 to 150 kilometers, were seized on or about

D+2-3. The second-echelon armies of the first-echelon fronts would be committed after the front's immediate objectives located at a depth of 250 to 350 kilometers were seized on or about D+6-10. Pact planning assumes that the second-echelon fronts would be moved forward from the western military districts and committed at about D+7 or later. However, if the first-echelon fronts were able to sustain the momentum of the offensive, the second-echelon fronts might well be held longer in reserve and committed much later in the campaign against objectives deep in the theater.

19. We believe initial Pact operations in a conflict would be carried out by the forces currently assigned

to the groups of forces and to the NSWP armies. The divisions from the western USSR military districts would not be required immediately; rather, they would be employed to seize deep follow-on theater objectives. The Soviets accept the risk of maintaining their forces in the western USSR at lower readiness levels and probably believe that sufficient time would be available for these units to attain acceptable readiness levels before and after D-day, prior to their commitment. Under any scenario, however, we expect that the Soviets would use whatever time was available to increase unit proficiency through training [redacted]

### Readiness for Operations in the Western TVD

20. The Soviets have two general options in preparing to conduct operations in the Western TVD:

- They could initiate operations immediately upon completion of alert and mobilization of sufficient units to flesh out the force.
- They could conduct the training necessary to improve proficiency to a point of their choosing, and thus enhance the combat potential of their forces [redacted]

21. If the Soviets were willing to accept the lower mission proficiency of units that had not been completely trained, we believe they could generate sufficient Soviet forces to support a three-front offensive within three to five days and the Soviet forces to support a five-front offensive in 10 to 11 days (see figure VI-5). These periods would *not* include the time necessary to move these forces, however:

- Within 72 hours after alert, they could have available for deployment the 26 "ready" tank and motorized rifle divisions in the groups of forces that would support the Pact first-echelon fronts, as well as two or more airborne divisions.
- The tank and motorized rifle divisions (including all mobilization divisions) making up the second-echelon Belorussian and Carpathian fronts and divisions in the Baltic<sup>3</sup> and Kiev MDs, which would serve as potential reserves, would require 11 days to complete mobilization.
- Alert and mobilization of front- and army-level support forces would range from 36 hours to four

<sup>3</sup> The 11th Guards Army, which probably would be assigned to the Soviet-Polish Front, could mobilize in 4.5 to 6.5 days. (s)

days for units in the "ready" category (air assault units, front and army signal units, Scud and Scaleboard units, SA-4 brigades, and independent tank and motorized rifle regiments) and from two to five days for "not ready" units such as ponton bridge regiments, engineer brigades, motor transport units, and artillery brigades and divisions.

- Preparation of the command, control, and communications structure for the front/army forces would require three to five days from alert. [redacted]

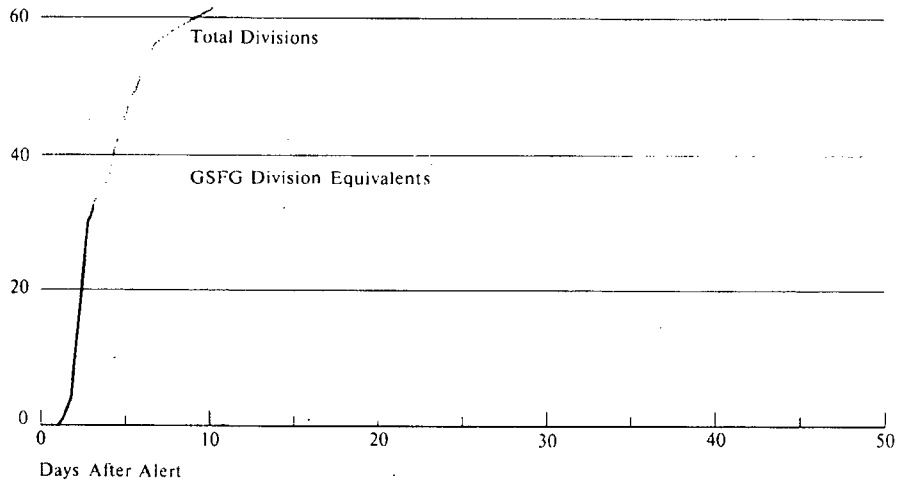
22. Should the Soviets opt to train all divisions up to the level of mission proficiency required for offensive operations in a mid-to-high-intensity combat environment, the availability time for the entire five-front force would be considerably longer:

- The initial force generation profile would not differ greatly from that when no additional training was undertaken, largely because of the availability of the "ready" divisions within 72 to 96 hours after alert.
- The remaining "not ready" divisions, however, would require up to 45 days to alert, mobilize, and conduct the necessary training [redacted]

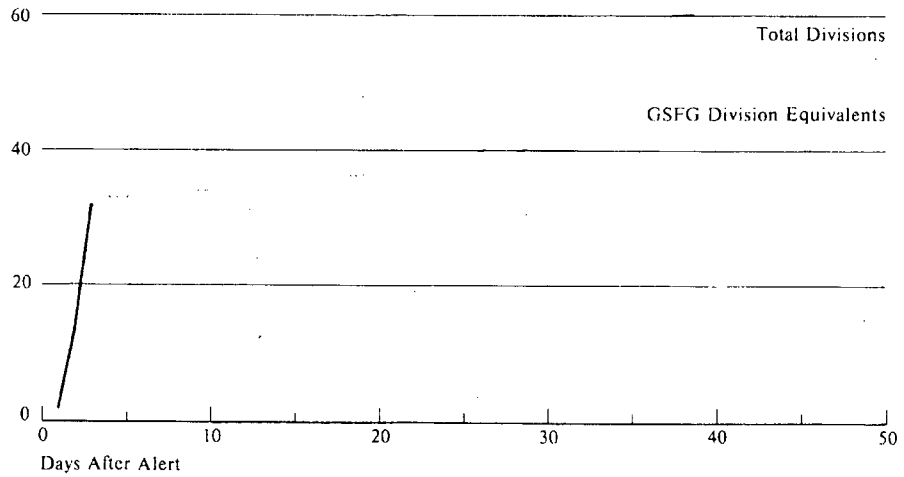
23. The 26 "ready" divisions in the groups of forces (probably plus the 11th Guards Army from the Baltic MD) that would support the three first-echelon fronts make up less than half of the total first-echelon force. Soviet divisions make up the bulk of the center (Soviet-East German) front but less than a third of the northern (Polish-Soviet) and only a third of the Czechoslovak-Soviet front. Together, the East Germans, Poles, and Czechoslovaks would provide 35 of the 61 divisions in these three fronts. Polish and Czechoslovak forces would be particularly important because they would make up the bulk of the flanking forces on either side of the key central (Soviet-East German) front. Ultimately, therefore, the readiness and combat potential of the first echelon would be heavily dependent on that of the Soviet-allied forces. This memorandum does not assess the readiness of non-Soviet Warsaw Pact forces. We believe that some NSWP divisions (all six East German divisions and a few Polish and Czech divisions) could be mobilized about as quickly as their Soviet counterparts. We do not believe, however, that all NSWP divisions and support forces supporting the three-front first echelon could be readied as quickly as the Soviet elements of that force [redacted]

**Figure VI-5**  
**Force Generation Profile for Soviet Divisions: Western TVD**

Number of Divisions Available  
Upon Completion of Alert and Mobilization



Upon Completion of Required Training



24. Under other than emergency conditions, it is likely that the Warsaw Pact would opt to take the time necessary to mobilize and prepare the non-Soviet forces that play a crucial role in its first echelon. Under conditions requiring rapid preparations, the Soviets would have to launch the offensive either with less fully prepared NSWP forces on the flanks or with a thinner first echelon until NSWP forces could be brought up to full readiness. Either of these options—or the observable and time-consuming movement forward of additional forces from the USSR—would place the Soviets in a less-than-optimum position operationally. Thus, the readiness and combat potential of the NSWP are critical. [ ]

25. The additional training undertaken by "not ready" divisions would have a significant impact on the overall combat potential of the force. At the completion of alert and mobilization (A+11 days), the force of 62 tank and motorized rifle divisions (including all mobilization divisions) would have the combat potential of 39 GSFG division equivalents (or approximately 63 percent of the maximum possible value of these units. After an additional 32 days of training, however, or a total of 43 days from initial alert, the combat potential of the force of 62 divisions could increase by about 30 percent to 51 GSFG division equivalents. Similar gains would be achieved by non-divisional units. [ ]

#### Forces Opposite Southwest Asia

26. Soviet planning for operations in Southwest Asia differs substantially from that required for war in Central Europe. Not only would the scope of conflict and opposing forces differ, but the Soviets would have to consider a number of factors unique to the region:

- The importance of the Persian Gulf area to the Western Alliance.
- The status of the insurgency and Soviet force commitment in Afghanistan.
- Difficult terrain and poorly developed lines of communication.
- The presence of a NATO country (Turkey) bordering the area.
- The possibility of engaging the US Rapid Deployment Joint Task Force.
- A resurgence of Islamic unity.

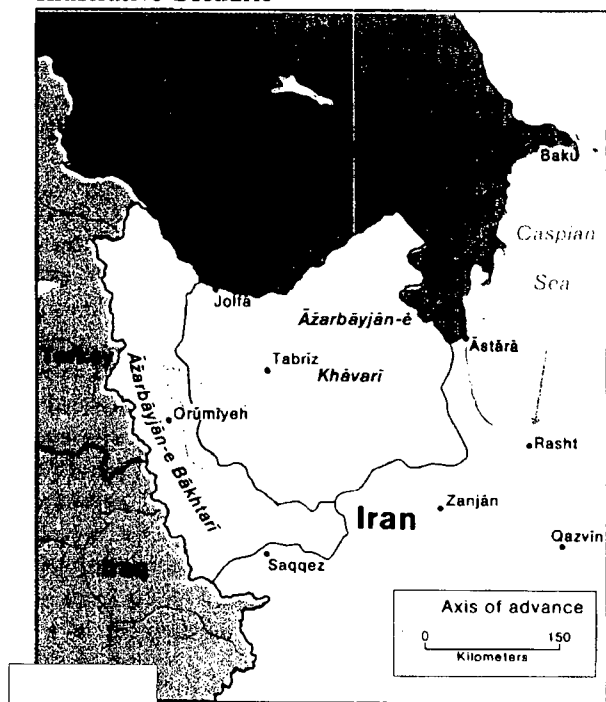
Two options that we believe have at least been considered by Soviet planners are:

- A limited operation to occupy northwestern Iran (Azarbayjan).
- A large-scale operation to seize control of Iran and the northern littoral of the Persian Gulf. [ ]

27. We believe that the Soviets could undertake a limited operation employing a single combined-arms army, with three to five divisions in Azarbayjan, supported by all or some of the following elements: a tactical aviation division; several helicopter regiments; airborne, air assault, or airmobile forces; and amphibious forces. An invasion force of this size could be assembled from the forces available in the Transcaucasus and North Caucasus MDs of the USSR (see figure VI-6). [ ]

28. To conduct the larger operation, Soviet planners might require up to six ground armies with about 21 divisions (19 motorized rifle and two airborne). These forces would be drawn from the Transcaucasus, North Caucasus, and Turkestan MDs and Soviet forces in

**Figure VI-6**  
**Soviet Invasion of Iranian Azarbayjan:**  
**Illustrative Scenario**





**Table VI-3**

**Troop List for Soviet Operations Against Iran**  
(Ground Formations)

<b>Transcaucasus front</b> (13 divisions)	Up to 4 SA-4 battalions
7th Guards Army	1 or more ponton bridge regiments
4th Army	Attack helicopter units
31st Army Corps <sup>a</sup>	
12th Army Corps <sup>a</sup> (North Caucasus MD)	
<b>Turkestan front</b> (6 divisions)	1 or more SA-4 brigades
36th Army Corps <sup>a</sup>	1 or more ponton bridge regiments
40th Army	2 or more attack helicopter regiments
<b>Theater-level forces</b>	
Two airborne divisions	
Screening forces opposite Turkey (4 divisions)	
Scud brigade	

<sup>a</sup> Organized as an army for conduct of operations.

Afghanistan and probably would be organized into two fronts (see table VI-3).<sup>4</sup> The invasion would be likely to take place in two phases: a first phase designed to secure northwestern, central, and north-eastern Iran including Tehran, and then consolidate, resupply, and redeploy tactical aircraft to captured airfields; and a second phase involving a drive from central Iran to the Persian Gulf to seize the Khuzestan oilfields region and to secure control of the Strait of Hormuz. The phased approach could also be combined with an early "grab" of the strait by heliborne or airborne forces, although they would be at risk until reinforcements arrived over land.

29. In the initial phase of such an operation, three first-echelon armies would move into northern Iran, followed by three armies in the second echelon (see figure VI-7). Four divisions from the Transcaucasus and North Caucasus MDs would cover sectors along the Soviet-Turkish border vacated by assault forces. The Soviets would then consolidate positions in northwestern, central, and northeastern Iran; logistic and maintenance facilities would be established, a logistic buildup would be undertaken, and tactical air forces would redeploy to captured airfields. In the second phase, the Soviets would seize southwestern Iran, the Khuzestan oilfield region, and control of the Strait of Hormuz, using three armies with nine divisions.

<sup>4</sup> Forces from the Central Asian MD could also be available to support a major offensive.

### Readiness for Operations in Southwest Asia

30. We believe the Soviets could mobilize the number of divisions required for a limited operation against Azarbayjan about 60 to 80 hours after alert. They could generate the 20 or so divisions for large-scale operations in 120 to 140 hours (see figure VI-8). Without additional training, however, the combat potential of either force would be extremely low, and the most effective divisions would be those now in Afghanistan.

31. If the Soviets undertook a postmobilization training program before mounting the invasion, they could nearly double the combat potential of the force. Given the low estimated combat potential of these units in peacetime, we believe it likely that the Soviets would take time to train to higher proficiency levels. Failure to do so would add to the substantial risks already inherent in a campaign in this region.

### Forces Opposite China

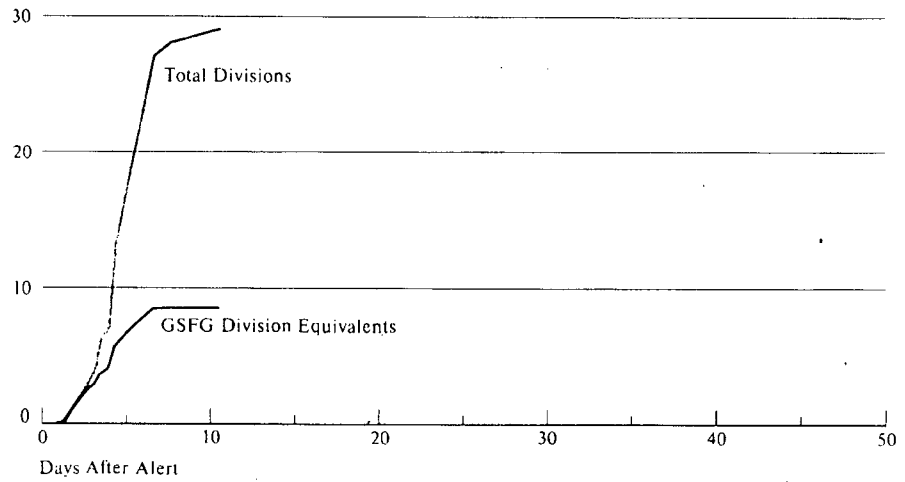
32. Soviet options in a Sino-Soviet conflict could range from large-scale raids with limited objectives to a full-scale invasion of western and northeastern China. Soviet objectives under any option would be conditioned in part by the international political environment, the military situation in other theaters, and the causes of the conflict. We believe, however, that military as well as political considerations probably would discourage the Soviets from pursuing the total

Figure VI-7  
Full-Scale Soviet Invasion of Iran: Illustrative Campaign

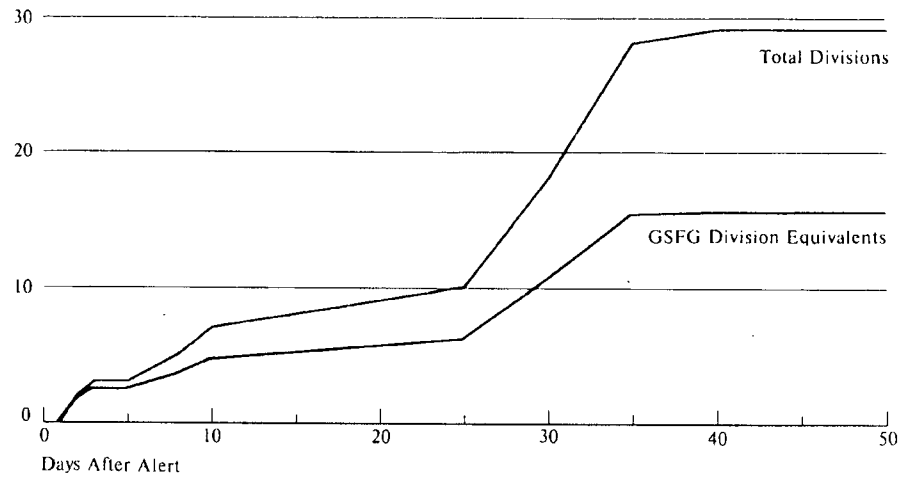


**Figure VI-8**  
**Force Generation Profile for Soviet Divisions: Southeastern TVD**

**Upon Completion of Alert and Mobilization**



**Upon Completion of Required Training**



**Figure VI-9**  
**Soviet Fronts in the Far East**



defeat and surrender of China or attempting the long-term military occupation of the Chinese heartland. [ ]

33. We believe that Soviet ground operations in the Far East would be interspersed with short defensive periods during which enemy incursions would be repelled, followed by offensive operations that would achieve high rates of advance and attain desired military objectives. For offensive operations, Soviet forces probably would be organized into three primary fronts—located in the Far East, Transbaikal, and Central Asian MDs—and, possibly, a reserve front from the Siberian MD (see figure VI-9). [ ]

34. **Operations Into Manchuria.** The major offensive campaign in the Far East probably would be aimed at Manchuria and could involve two fronts (the Far East and Transbaikal fronts) that have the largest share of ground forces. Soviet ground forces in the Far East front would conduct a multipronged attack designed to overrun Manchuria. Campaign objectives for the Far East front might include Harbin, Changchun, and Jilin, with a possible further drive to the Liaodong Peninsula and Yellow Sea ports. [ ]


35. The Transbaikal front—which includes forces from the Transbaikal MD and Mongolia—probably would attack into Manchuria and conduct a holding attack on the Mongolia-Beijing axis. Some forces would attack directly from the Transbaikal MD to capture the city of Hailar and eventually link with forces from the Far East front in the region of Qiqihar. The bulk of the front, however, would launch a three-pronged attack out of Mongolia, eventually linking up with forces from the Far East front in the region of Changchun. [ ]

36. **Central Asian Front.** The Central Asian front, if not occupied in support of the Southeastern Theater, probably would have limited objectives. The two corps (five to seven divisions) comprising this front probably would advance on two major axes, one through the Dzhungarian Gate and a second through the Ili River valley, to disrupt possible Chinese attacks and to create a protective buffer. [ ]

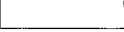
37. **Reinforcements.** The Siberian MD, with five active divisions and two mobilization divisions, provides the ground force reserves for the Far East Theater. If further reinforcements were needed, they would have to come from the central USSR. [ ]




**Readiness for Operations Against China**

38. The Soviets could alert and mobilize the 25 "ready" divisions in the Far East within four days. These divisions are maintained in a reduced strength status and would require manpower augmentation from local resources but little additional training. Within 11 days of an alert, the Soviets could generate a full 56-division force, including the reserve front in Siberia, and probably integrate it into the theaterwide command and control structure that exists in peacetime (see figure VI-10). 

39. Once mobilized, the Soviet force in the Far East would require additional training to achieve a level of combat proficiency consistent with that we have judged necessary for mid-to-high-intensity combat (that is, the GSFG minimum standard for offensive combat). The 25 "ready" divisions could be prepared in seven to nine days after alert, but "not ready" elements of the force—another 31 divisions and much

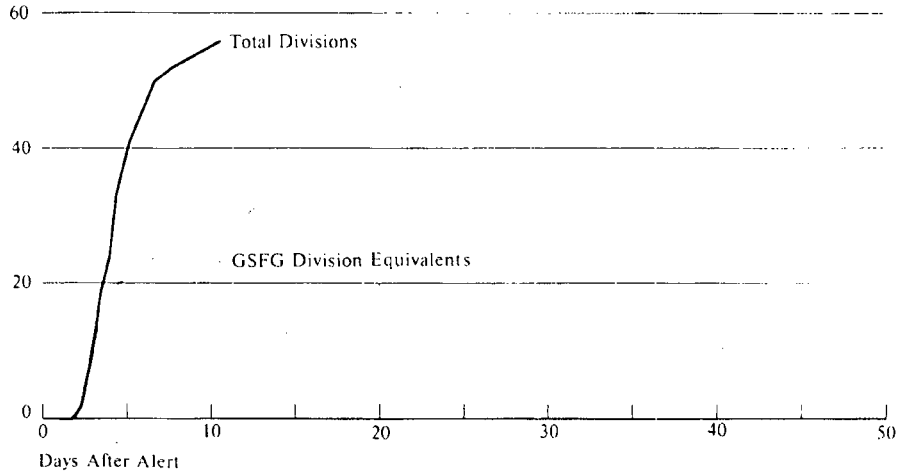
of the support structure—would require more than a month of training to achieve a comparable level of proficiency. 

40. Given the relatively low combat potential of the total force upon mobilization, the Soviets could opt to complete the required training prior to launching a major three-front offensive into Manchuria. In a more limited campaign, however, they could well choose to launch initial cross-border operations against the relatively thin forward defense of the Chinese Army and count on having sufficient time to prepare follow-on forces for commitment should they be required.<sup>5</sup> In any case, we expect the Soviets would use whatever time was available to increase unit proficiency through training. 

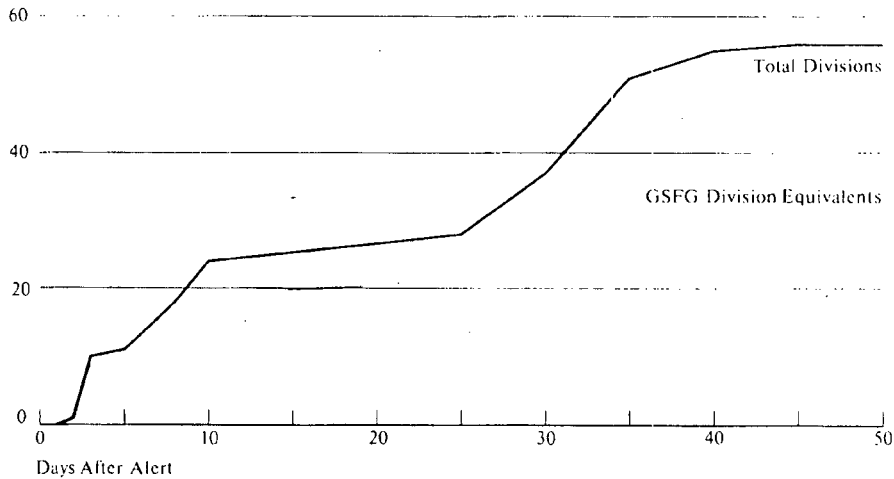


**Figure VI-10**  
**Force Generation Profile for Soviet Divisions: Far Eastern TVD**

Number of Divisions Available<sup>a</sup>  
Upon Completion of Alert and Mobilization



Upon Completion of Required Training



<sup>a</sup> Excludes division in Kuril Islands.