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# Intelligence Report

Peacetime Posture of Warsaw Pact Ground Force Divisions Facing the NATO Central Region

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CENTRAL INTELLIGENCE AGENCY Directorate of Intelligence May 1972

INTELLIGENCE REPORT

Peacetime Posture of Warsaw Pact Ground Force
Divisions Facing the NATO Central Region

### Introduction

During the past several years, classified Warsaw Pact writings have shed new light on the peacetime posture of Warsaw Pact ground forces.

and clandestine sources also have provided new information on the peacetime status and wartime mobilization of the Pact forces. Finally, improved satellite photographic coverage has made possible the development and use of an effective analytical method to identify and assess the status of ground force divisions inside the USSR which have been inaccessible to other data-gathering sources.

The system of categories used in NATO to describe the peacetime posture of Soviet divisions has a number of important defects which limit its usefulness and make it difficult to relate to currently available information on specific divisions.

-- Under the NATO system, "Category I" divisions include not only those fully manned and equipped and ready for immediate combat, but also those which must mobilize as much as 25 percent of their personnel and an unspecified number of

Note: This report was prepared by the Office of Strategic Research and coordinated within CIA.

# Comparison of Systems for Classifying Soviet Divisions

NATO system for categorizing Soviet divisions

CIA system for classifying Soviet divisions in peacetime

#### STATUS DESCRIPTION

## Category I

75 to 100% manned Unspecified shortages of equipment Training facilities not defined Mobilization required for some divisions

#### Category II

Manning levels average a little over 50 percent Unspecified shortage of equipment (greater than in Category I) Training facilities not defined

#### Category III

One-third manned Unspecified shortages of equipment (greater than in Categories I and II) Training facilities not defined

#### Combat Strength

At or near full manpower strength 85 to 100% equipped All training facilities No mobilization planned or required

#### Reduced Strength

50 to 75% manned (two-thirds of company-level units active) 40 to 75% equipped 75 to 100% training facilities

#### Cadre Strength

10 to 30% manned (one-third of company-level units active)25 to 55% equipped (shortages of tanks and artillery in some cadre divisions)50% or less training facilities

## AVAILABILITY FOR USE

Category I — within 1 or 2 days
Category II — within 7 days
from the beginning of mobilization
Category III — not intended for early
commitment. Generally available
"within some weeks," some possibly
in one week.

Not a direct criterion for peacetime classification

vehicles to achieve combat strength. This definition implies that a 25 percent shortfall in strength is of little consequence to combat readiness, a doubtful proposition.

- The definitions of "Category II" and "Category III" divisions include statements relating to the amount of time between their mobilization and their availability for combat use. Not only do these statements appear to contradict the available evidence on Pact plans and capabilities for employment of such divisions, but they also are not properly part of the description of divisions in peacetime. Rather, they are estimates of capabilities and intentions which are not directly ascertainable from the characteristics of the divisions.
- -- The system of categories used in NATO offers only a vague description of the peacetime personnel and equipment status of Soviet divisions. None of the categories cite specific criteria, based on observable characteristics, which are indicators of division strength and according to which Soviet divisions can be categorized. This report describes such criteria and demonstrates that they provide an appropriate basis for categorizing divisions.

This report presents the CIA method for systematically analyzing and describing the peacetime posture of Soviet divisions. The CIA system differs from the system used in NATO in several important respects (see facing page). Although the CIA system recognizes three distinct classes of peacetime Soviet divisions, it distinguishes between the three classes in terms of observable characteristics which are considered to be indicative of three distinct manning levels.

Unlike the NATO system, the CIA system distinguishes between divisions which are not intended to be augmented by mobilization, and divisions which are so intended. Also, unlike the NATO system, it does not classify divisions according to their estimated mobilization times and assumed delays in becoming available for combat after mobilization. Rather, as this report shows, the timing of commitment to combat is more a function of Warsaw Pact contingency plans and the current locations of the divisions than of their peacetime manning and equipment levels.

This report also reexamines the current NATO assumption that most East European divisions opposite the Central Region of NATO are in "Category I," or combat ready. It presents evidence showing that all Czechoslovak and Polish divisions are significantly below the estimated war strength and that they are expected to be built to war strength by mobilization.

This report reviews Warsaw Pact concepts and systems for posturing ground forces in peacetime. It derives an estimate of the posture of Pact divisions in the forward area--that is, East Germany, Czechoslovakia, and Poland--largely from documentary and human source evidence. It describes the development and application of a method which uses information from overhead photography to classify Soviet divisions in the western USSR according to observed indicators of manning levels. Finally, the report examines evidence on Warsaw Pact plans and capabilities for mobilizing understrength divisions and for making them available for use in combat.

Although this report makes some preliminary observations on the likely initial combat effectiveness of mobilized Warsaw Pact ground forces, a detailed evaluation of training, command and control, tactics, doctrine, organization, and other factors which would bear on combat effectiveness is beyond its scope.

A summary of the report begins on page 40.

# Contents

	Page
Warsaw Pact Concept of Ground Force Posture	7
Systems for Maintaining Warsaw Pact Ground Forces	9
Soviet Forces	9 11 12 13
Posture of Forward Area Divisions	15
Equipment Levels	15 17
Peacetime Status of Divisions in the USSR Intended for Follow-on Operations Against the NATO Central Region	19
Determination of Equipment Levels	19
The Standard Measure	21 21
Determination of Personnel Levels	23
Training Facility Indicators Groupings of Divisions Based on	23
Observable Characteristics	28
Strengths	30
Classification of Soviet Divisions by Personnel Levels According to Observable Characteristics	33
Mobilization and Availability of Warsaw Pact Divisions for Combat Use	35

# Contents (continued)

											•								Page
	Mobili: Availak			•	•		•	•	•	•	•	•	•		•	•	•	•	35 36
	at Effe Divis			ss •	of •	•	ob •	il •	iz •	ec.	1 V	ar •	: •	•	•	•	•	•	38
Summa	ary .			•		•			•	•	•	•		•			•	•	40
						Μā	<u>ıp</u>												
	aw Paction of			on:	•			it.	:е •	Ce	ent •	ra •		•	•	•		•	20
				]	?hc	oto	gr	aŗ	hs	<u> </u>			-						
	onnel ( ical F							•	•	•	•	•	•	•	•	•	:	•	24 25
					3	rak	<u>le</u>	es.											
	Equipme the W	ester	n U	SS	R			•				•	•				•		22
2. (	Obstac: the W					E S	an •	ıpl	.e	D:	iv:	is:	io:	ns •	iı	n •		•	26
3	Tactica Divis														le •				27

# Warsaw Pact Concept of Ground Force Posture

Warsaw Pact ground forces are organized and maintained to conform to Soviet views of general war in Europe which were formulated in the early Sixties. According to these views, substantial ground forces would be required in a conflict which would either begin as or quickly escalate to a nuclear war. From the point of view of Soviet policy makers, it was economically prohibitive and politically impractical to maintain such large forces in peacetime either at full wartime strength or in significant numbers on the NATO frontiers outside the USSR.

To solve the economic and political problems, the Soviets adopted a system of various levels of strength. Only a small portion of their ground forces--primarily those near the NATO borders--were to be maintained at full strength in peacetime. remaining forces were to be kept at reduced levels of strength with a capability to mobilize rapidly and move into battle. In implementing this concept, the Soviets have positioned only a large enough force in the forward area opposite the Central Region of NATO--East Germany, Poland, and Czechoslovakia--to defend against a NATO attack and to conduct initial offensive operations. This disposition is intended to provide the time necessary for a partially manned and equipped force in the western USSR to be mobilized and brought forward to provide the reinforcements which the Soviets deem necessary for follow-on operations against NATO.

In keeping with this concept, the Soviets have provided the forces in the forward area with most of their war authorized equipment and manpower. At the same time, the Soviets have elected to rely on mobilization to fill out the remaining combat units and to supply the remaining support personnel and transport required for a campaign against NATO.

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The East European countries have, for the most part, adopted the Soviet concept and maintain only some of their ground forces at full strength in peacetime. Like the Soviets, the East Europeans hope to be able to achieve rapid mobilization to augment the remaining forces with men and trucks.

- 8 -

# Systems for Maintaining Warsaw Pact Ground Forces

## Soviet Forces

Evidence on the Soviet system for maintaining ground force units in peacetime is derived largely from Soviet writings of the early Sixties--chiefly the documentary material supplied by Colonel Penkovskiy. No subsequent evidence is available which would suggest that this system has undergone any important changes. Moreover, observation of the ground forces and analysis of their activities indicate considerable stability in force posture and employment concepts.

Changes which have occurred in the forces have tended to bring them into line with the concepts of force organization discussed in the documents supplied by Penkovskiy. For example, it was not until the late Sixties that the number of tactical nuclear weapons provided to the ground forces reached the levels advocated in these documents.

Analysis of the Penkovskiy documents, however, does not provide a clear understanding of the system for maintaining forces which the writers were discussing. Nevertheless, the writings indicate that three levels of peacetime strength existed in ground force units. These levels were usually referred to as "up to strength," "reduced strength," and "cadre form." None of the authors gave any indication of the actual strength levels associated with the terms used, nor did they indicate how many divisions made up each level.

In discussing mobilization and reinforcement, the authors usually divided the forces into echelons. The forces were grouped partially on the basis of their peacetime status and partially on the basis of their envisaged role in combat operations against NATO.

One document, written in 1961 by General Ya. Shchepennikov, discussed a hypothetical Pact buildup situation in Central Europe and divided the forces into three echelons.\* The first included "the troops and materiel that are in a full state of readiness for immediate operations"; the second, "the forces and weapons designated for increasing the efforts of the initial operations with readiness for proceeding to areas of concentration after several days"; and the third, "the forces and weapons to be used only several weeks after the beginning of full mobilization." The relationship between the arrival times of these echelons and the peacetime status of their component units was not explained in the writings.

Because of their proximity to NATO forces and their relative isolation from the USSR, the Soviet divisions stationed in East Germany, Czechoslovakia, and Poland would have had to have been included among those described as being in a full state of readiness. Such divisions are now probably intended to be at or near war strength. Neither documents nor human sources, however, have provided information to confirm the status of these divisions as seen by the Soviets themselves.

High-resolution overhead photography currently provides the primary evidence that Soviet ground

- 10 -

<sup>\*</sup> In Soviet military terminology the term "echelon" normally is used in a tactical context to describe the employment of troops in battle. Units initially committed constitute the first echelon, while other forces, to be committed later, constitute succeeding echelons. These succeeding echelons are not reserve forces intended to replenish or augment forces already engaged. They often have separate objectives of their own. In the Penkovskiy papers some Soviet writers used the term "echelon" in a broader context to describe the strategic movement of contingents of forces from the rear and the sequence and timing of their entry into the theater of operations.

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force units are equipped at varying levels. Some human sources have provided information on a few units which confirms that the Soviets maintain their ground forces at varying personnel levels in peacetime. No source independently provides sufficient information to identify the specific units constituting the groupings referred to in the Penkovskiy documents as "up to strength," "reduced strength," and "cadre form," or to define their characteristics precisely.

#### Czechoslovak Forces

In wartime, the Czechoslovak Army plans to form a front\* organized into two echelons. In peacetime, the Czechoslovak divisions which would constitute this front are maintained at varying levels of strength.

Evidence on the Czechoslovak system for main- taining ground force units in peacetime has come mainly from senior officers who
stated that all first-echelon
divisions were maintained at about 70 percent of full
personnel strength, with shortages extending into the combat elements. The sources believed, however, that
these divisions had a full complement of equipment.
***************************************
Various sources who served in some of the first-echelon divisions during the middle and
late Sixties have also provided information on their
units which corroborates the reports. Only
believed these divisions to be fully manned in peace-time.

<sup>\*</sup> The front is the Warsaw Pact's highest wartime field headquarters for the joint operational control of theater forces.

The remaining Czechoslovak divisions—those of the second echelon—were described by several sources, as cadre divisions which would require the mobilization of large numbers of men and trucks before undertaking combat operations. Two sources believed that these divisions were manned at about one—third of full personnel strength. Some of the sources believed that these divisions were short about half their cargo trucks.

### Polish Forces

Evidence on the Polish system for maintaining ground force units in peacetime comes from recent official classified documents, human sources, and high-resolution overhead photography. Both the documents and human sources indicate that in wartime the Polish Army would form a front of two echelons. The documents further identify three strength classes of Polish divisions.

The top class, generally described as "expanded" or "fully developed," is designated by the Poles as Class A. This class is intended to be manned at 80 to 100 percent and to be fully equipped. Polish soldiers who served in Class A divisions have indicated that personnel shortages greater than 20 percent existed in their units. One put his division at 75 percent of full strength, while other sources gave figures indicating that their Class A units were at even lower strengths.

At present, Polish military authorities apparently hope to augment Class A divisions prior to their entering combat. It appears, however, that the Poles plan in the future to have Class A divisions capable of entering combat without first raising them to full strength. A 1971 Polish Ministry of Defense training directive said that first-line Polish units were to attain the capability of performing their designated combat missions without being brought to full strength.

Class B Polish divisions are described in documents as "not up to full strength" and have unspecified

personnel and equipment shortages. According to the documents, these divisions have fewer men than the 80 percent ascribed to Class A divisions, but more than the 20 percent ascribed to Class C divisions described below. Although actual strength figures for Class B divisions remain unknown, former Polish soldiers with service in such divisions generally affirm their reduced personnel strength.

The documents also indicate that Class B divisions are able "without additional manning...to participate with part of their forces in carrying out their designated missions." It is not clear whether these "designated missions" include combat operations or simply refer to mobilization and movement to assembly areas. It is likely, however, that in an emergency situation which precluded mobilization, the Poles would commit to combat those elements of Class B divisions which possess some fighting capability.

Class C divisions, also identified as cadre, are maintained at about 20 percent of full personnel strength and have major equipment shortages. Scenarios of Warsaw Pact exercises indicate that these cadre divisions constitute the Polish second echelon.

The evidence on the Polish system from documents and human sources is further supported by analysis of high-resolution photography which indicates that Polish tank and mechanized divisions are equipped in peacetime at levels consistent with the ranking of divisions implied in the documents. The Class A divisions have the highest levels, Class B divisions have intermediate levels, and Class C divisions have low equipment levels. No photographic evidence is available on the personnel strengths of these divisions.

### East German Forces

Evidence on the East German system for maintaining ground force units in peacetime comes from who served in various East German ground

force units during the Sixties. These indicated that the organization of the East German Army divisions was similar to that of Soviet divisions and that they were probably at or near full personnel strength.
who commanded an East German regiment in the early Sixties stated that his regiment was kept at full strength, but in emergencies it was to be augmented by a small number of medical personnel and a limited number of drivers and some unspecified types of equipment mobilized from the civilian economy. The source believed, however, that there was no essential difference between the peacetime and wartime personnel level of his regiment and that all regiments and divisions of the East German Army were maintained at about the same strength levels.
Low-ranking enlisted men who served in various East German divisions in the late Sixties have pro- vided information confirming the  peacetime strength levels. These sources indicate that East German divisions probably
are manned at or near full strength and that no mo- bilization of any significance is planned or required prior to commitment to combat. There is no photo- graphic evidence available on the personnel strengths of East German divisions.

## Posture of Forward Area Divisions

The numbers and types of Soviet and East European divisions in the forward area have been determined with confidence based on information from a variety of sources. These are shown in the following tabulation:

•	Soviet Divisions	East European Divisions
East Germany Tank Motorized rifle	10 10	2 4
Czechoslovakia Tank Motorized rifle	2 3	6
Poland Tank Mechanized Airborne Amphibious	2	5 8 1 <u>1</u>
Total	27	33

# Equipment Levels

Because of their position opposite NATO and the evidence that Soviet contingency planning envisages immediate commitment in case of hostilities, the 27 Soviet divisions which constitute the groups of Soviet forces in East Germany, Czechoslovakia, and Poland are believed to be typical of the best equipped Soviet divisions. Polish, East German, and Czechoslovak divisions are generally organized along Soviet lines, although the size and some component units vary somewhat from the Soviet model. No official tables of organization and equipment are available on Soviet or East European divisions, but high-resolution

photography permits these divisions to be observed and their equipment levels\* to be determined.

Two Soviet divisions in East Germany--one tank and one motorized rifle--were examined intensively in low-level aerial photography. The tank division has about 2,300 major equipment items; the motorized rifle division, about 2,450. Photographic analysis indicates that the equipment levels of these two divisions are representative of the equipment levels of the other 25 Soviet divisions in the forward area.

Analysis of photography of Polish divisions supports descriptions of divisions in official Polish documents which indicate that Polish tank and mechanized divisions are equipped at three levels. The largest Polish divisions appear to have about 70 percent of the equipment of full-strength Soviet divisions. The smallest have only about 30 percent.

Human sources and official Polish documents indicate that Polish divisional tables of equipment may call for an equipment level equaling 80 percent of that of their Soviet counterparts. The 10 percent difference between the probable equipment requirement and the observed equipment levels indicates shortages in even the best equipped Polish divisions. These divisions appear to be short about 200 to 300 major equipment items, mostly cargo trucks. The cadre divisions have major shortages of some 1,200 to 1,700 items, including both combat equipment—for example, tanks, artillery, and armored personnel carriers—and general—purpose vehicles.

Divisional tables of equipment for Czechoslovak forces, also, apparently are smaller than those of Soviet divisions. A

<sup>\*</sup> As used in this report, the term "equipment level" refers to the total of self-propelled and towed major equipment items in a unit. This total includes items such as trucks and field artillery and two-axle trailers, but excludes items such as recoilless rifles and mortars smaller than 120mm.

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indicated that Czecho-slovak tank and motorized rifle divisions were about 80 percent as large as Soviet divisions. Analysis of photography confirms that the best equipped Czecho-slovak divisions—those of the first echelon—have about 300 to 400 fewer major equipment items, primarily cargo trucks, than Soviet divisions.

Analysis of photography of East German divisions indicates that their equipment levels, too, are lower than those of the Soviet model. East German divisions appear to have 200 to 300 fewer trucks than fully equipped Soviet divisions. No official tables of equipment for East German divisions are available, and there is no indication that they are intended to attain Soviet levels in wartime.

# Personnel Strengths

There is little information on the actual manning levels of Soviet forces in the forward area. The 20 Soviet divisions stationed in East Germany, as well as the 5 divisions in Czechoslovakia and the 2 in Poland are believed to be at or near full wartime strength, with no mobilization planned or required prior to their being used in combat. These forces are positioned as the first defense against NATO forces and presumably would require a capability to respond immediately to a NATO attack. Furthermore, there is no mobilization base in the forward area from which Soviet manpower shortages could be made up.

Only a few human sources have provided information on manpower levels of Soviet units in the forward area. A Soviet stated that reservists mobilized by his regiment to raise it to wartime strength for the invasion of Czechoslovakia were replaced by regular military personnel after the division to which the regiment was subordinated was permanently stationed in Czechoslovakia. This regiment, thereby, remained at full strength.

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indicated that as of 1964 their regiment was also at full strength. A third Soviet however, stated that in 1969, the maintenance battalion of his tank division in East Germany was missing two of its nine platoons because of a "critical shortage of personnel." It is not known whether the maintenance battalion was permanently maintained under strength or whether it was a temporary condition.

Of the 33 East European divisions in the forward area, only the 6 East German divisions are believed to be at full wartime personnel strength. All 15 Polish and 12 Czechoslovak divisions must mobilize personnel to attain full wartime levels.

According to official Polish documents and the statements the 8 Polish tank and mechanized divisions which would constitute most of the first echelon of the Polish front are maintained at reduced personnel levels. Some of these divisions have about 80 percent of their men and some probably have about 50 percent. These sources also indicate that 5 other Polish divisions, all mechanized, are cadre divisions and probably are manned as low as 20 percent of full strength. Of these, 4 would constitute the second echelon of the Polish front: the other division would be in the first echelon. The airborne division and the amphibious division are believed to be maintained at about two-thirds of full strength.

have indicated that the 8 Czechoslovak tank and motorized rifle divisions which would constitute the first echelon of the Czechoslovak front are manned at about 70 percent of full strength in peacetime. Four other divisions which would form the second echelon are maintained in cadre status. Two of these cadre divisions are active in peacetime and are manned at about 30 percent of full strength. The other two divisions are to be constituted at the time of mobilization (M day) from personnel taken from the active forces plus reservists, but have no assigned personnel in peacetime. The combat equipment for these divisions reportedly is available in storage.

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# Peacetime Status of Divisions in the USSR Intended for Follow-on Operations Against the NATO Central Region

Marsaw Pact documents, and the statements of numan sources indicates that the Soviets plan to use ground forces in the Baltic, Belorussian, and Carpathian military districts of the USSR in follow-on operations against the Central Region of NATO after initial operations by Pact forces currently located in the forward area (see map, page 20). These sources, however, do not provide a comprehensive understanding of the peacetime size and readiness conditions of the 26 tank and motorized rifle divisions currently located in those districts.

It has been necessary, therefore, to devise a method for classifying Soviet divisions according to observable characteristics, or indicators, and thereby determine their peacetime posture. The method--applicable to the classification of all Soviet divisions--uses evidence from high-resolution photography, which is generally available on all Soviet divisions, together with a limited amount of information provided by human sources on specific divisions. The indicators of primary use for classification are the levels of major equipment items calculated for divisions and the number of selected small-unit tactical firing ranges associated with specific divisions.

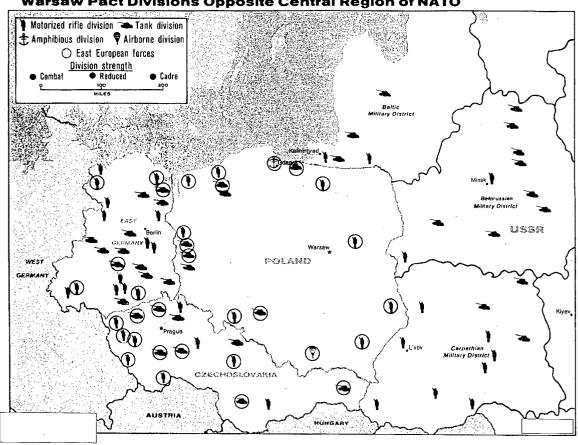
Because this analysis involved the development of a new methodology, it was necessary to examine a large sample to test its validity. In all, 53 divisions, constituting over 65 percent of the divisions in the western USSR, were examined. All 26 divisions in the Baltic, Belorussian, and Carpathian military districts were included in the sample.

# Determination of Equipment Levels

High-resolution photography has provided the means of attaining a reasonably accurate aggregate

· 19 -

## **Warsaw Pact Divisions Opposite Central Region of NATO**



	Combat	Strength		Reduced	Cadre Strength			
	-	<b>)</b>	*	*	7	<b>±</b>	*	¥
Soviet	14	14	14	3	0	0	0	8
East German	2	4	0	0	0	0	0	0
Polish	0	0	5	3	. 1	1	0	5
Czechoslovak	0	0	3	5	0	0	3	1
Total	16	18	22	11	1	1	3	14

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count of the major equipment items--such as tanks, artillery, trucks--in each Soviet unit.

## The Standard Measure

The representative motorized rifle division and tank division in the Group of Soviet Forces in Germany (GSFG) are believed to be typical of the best equipped Soviet divisions. The equipment levels of the motorized rifle division--2,450 major equipment items--and of the tank division--2,300 major items--have been adopted as the standard measure for all Soviet divisions.\*

# Equipment Level Assessment

Analysis of photography of the 53 divisions in the USSR included in the sample indicated that only one division, a motorized rifle division at Minsk in Belorussia, is equipped at the GSFG level. The equipment levels of the other divisions range from 25 to 75 percent of the standard. (See Table 1.)

No tank division has less than 40 percent of the standard nor more than 70 percent. Of the motorized rifle divisions, three have levels of equipment at

<sup>\*</sup> The equipment levels of the four Soviet divisions in Hungary have also been determined. These divisions probably are also intended to perform their combat mission without prior mobilization or augmentation and they are believed to be at combat strength. These divisions, however, have 200 to 400 fewer vehicles than Soviet divisions in East Germany--the 15 percent difference being mainly cargo vehicles which would limit division logistic capabilities. No Soviet divisions with equipment levels lower than these divisions are considered to be at combat strength.

Table 1

Equipment Levels of Sample Divisions in the Western USSR

	:	Equipment			E	quipment
		Level				Level
Division	Location	(Percent) *	DIV	sion	Location (	Percent) *
120 GMRD	Minsk	95	- 59	GMRD	Tiraspol	50
24 MRD	L'vov	75	70	GMRD	Ivano-	
8 GTD	Marina Gor				Frankovsk	50
23 TD	Ovruch	70	75	MRD	Nakichevan	50
47 GTD	Borisov	70	97	GMRD:	Slavuta	50
128 GMRD	Uzhgorod	70	161	MRD	Izyaslav	50
$\mathbf{T}\mathbf{D}$	Berdichev	65	•	TD	Dnepro-	And the Cattle Turk Arthur
1 TD	Kaliningra	d 60			petrovsk	45
8 TD	Slonim	60		TD	Krivoy Rog	45
22 TD	Bobruysk	60	64	GMRD	Sapernoye	45
34 GTD	Nikolayev	60	66	GMRD	Chernovtsy	45
TD	Dobele	60		MRD	Batumi	45
TD	Sovetsk	60		MRD	Chebarkul	45
3 GTD	Lepel	55	75	GTD	Chuguyev	40
4 GTD	Naro-Fomin	sk 55		TD	Vypolzov	40
10 TD	Borisov	55	73	MRD	Novorossiys	sk 40
1 GMRD		d 55		MRD	Belgorod-	
15 GMRD	Vladimir-				Dnestrovsk	iy 40
	Volynskiy	55	9	MRD	Maykop	35
26 GMRD	Gusev	. 55	10	GMRD	Akhalkalaki	. 35
MRD	Tambov	55		MRD	Akhaltsikhe	35
27 TD	Polotsk	50	126	MRD	Sverdlovsk	35
29 TD	Slutsk	50	1.	MRD	Totskoye	35
42 GTD	Volnoye	50	50	GMRD	Brest	30
${f T}{f D}$	Kamyshlov	50	72	GMRD	Belaya-	
TD	Novograd-				Tserkov	30
,	Volynskiy	50	21	MRD	Konotop	30
6 MRD	Lenkoran	50		MRD	Ordzhonikio	lze 30
32 GMRE		50	17	MRD	Khmelnitski	y 25
33 GMRL	Beltsy	50				

Note: Shaded units are motorized rifle divisions (MRDs and GMRDs), and unshaded units are tank divisions (TDs and GTDs). In both categories units prefixed by the letter G have the honorary title Guards.

<sup>\*</sup> Equipment levels as a percentage of levels in GSFG divisions.

70 percent or more, and the remainder range between 25 and 55 percent of the standard.

Shortages consist mainly of general-purpose cargo vehicles and armored personnel carriers. The 10 divisions with less than 40 percent probably lack combat equipment such as tanks and artillery as well. This assessment is based on the observation that about 40 percent of the equipment in a GSFG division, some 1,000 items, consists of items which have no civilian equivalent and could not be made up through mobilization.

In terms of equipment levels, when the combatstrength divisions in the forward area are included, Soviet divisions are of two types. One type is equipped at or near the GSFG standard and the other has reduced equipment levels. The reduced-equipment divisions have equipment levels between 25 and 75 percent of the GSFG standard. Tank divisions mainly occupy the upper end of this range, and motorized rifle divisions occupy the lower end.

# Determination of Personnel Levels

Estimates of authorized wartime personnel strengths of Soviet divisions are derived from military documents and from Full-strength Soviet motorized rifle divisions are believed to have about 10,500 men; full-strength tank divisions have about 8,500.

No intelligence source provides direct measurement of the personnel strengths of Soviet divisions. In addition to the equipment levels discussed above, however, there are other indirect indicators of personnel strength which can be identified and measured in overhead photography. These indicators include the personnel and unit training facilities belonging to regimental-size units which are located within the garrisons and local training areas of Soviet divisions.

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on combat-strength divisions in the forward area, three groups of divisions become apparent which probably correspond to the three peacetime levels of strength referred to in Soviet documents (see discussion on page 9).

The first group consists of divisions with close to 100 percent of their equipment and with training facilities equal to the GSFG level. Only one of the 53 divisions studied inside the USSR--the motorized rifle division at Minsk in the Belorussian Military District with 95 percent equipment and 100 percent tactical ranges--appears to be similar to GSFG divisions in all observable aspects.

The second group includes 28 of the sample divisions with 40 to 75 percent of a full complement of equipment. All but three of these divisions have tactical ranges at GSFG levels. The three exceptions have 75 percent of a full complement of tactical ranges and otherwise closely resemble other divisions in the second group. All 22 of the tank divisions studied fall into the second group, along with 6 motorized rifle divisions.

The third group consists of the remaining 24 divisions. All are motorized rifle divisions, and all except three have tactical firing ranges at 50 percent of the GSFG level. Two divisions have 25 percent and one has none at all. None of the 24 divisions has more than 55 percent of GSFG equipment levels.

The wide ranges in equipment levels which exist within each group suggest that personnel strengths may vary within groups. Nevertheless, these groupings probably correspond to the three peacetime levels of strength identified by the Soviets.

# Information on Specific Division Personnel Strengths

Only a few human sources have provided useful information on personnel strengths of specific divisions in the selected sample. These sources have either served in or had access to information on Soviet divisions and constitute the best available basis for estimating manning of the two understrength divisional groupings.

# Cadre Divisions

Several human sources have furnished actual strength data for five of the motorized rifle divisions that are in the third grouping derived from photography. These data indicate manning levels for these divisions ranging between 10 and 25 percent of war strength. The sources refer to these as cadre divisions and generally describe them as having no more than one-third of their companies manned. Four other divisions in this group have been identified by human sources as cadre divisions but no actual strength data was supplied. In addition, four other motorized rifle divisions which have been identified, but on which insufficient data are available for a detailed photographic assessment, were called cadre divisions with strength levels of between 15 and 30 percent. No divisions with training facility and equipment levels at or near the GSFG level have been called cadre divisions.

### Reduced-Strength Divisions

Personnel data are available on five divisions which currently have reduced equipment and high training levels. Information is also available on one additional division formerly in this grouping but which has been raised to combat-strength status. The most detailed information is on the 31st Tank Division-currently at combat strength-which, when

it was located in the Carpathian Military District, fell at the upper end of the second photographic grouping, and the 23rd Tank Division, which currently falls at the upper end of this grouping.

The 31st Tank Division, now in Czechoslovakia, was described by a Soviet in terms which indicate that it had between 50 and 75 percent of its personnel before it was mobilized in 1968. His own motorized rifle regiment had between one-half and two-thirds of its men, with one-third of its rifle companies unmanned and the others manned at no more than two-thirds strength. This source also described the organization and personnel levels of the 23rd Tank Division, which is still in Carpathia, as identical to those of the 31st. A second source reported the motorized rifle regiment of the 23rd Tank Division as at no more than two-thirds strength, with only six of its nine motorized rifle companies active in peacetime.

Some information is available on a third Soviet division—the 128th Guards Motorized Rifle Division at Uzhgorod in Carpathia—which also has equipment and training facility levels at the upper end of this grouping. The Soviet indicated that at least some elements of two of the division's motorized rifle regiments were at reduced personnel levels—possibly cadre strength. The source was unable to elaborate further on the strength level of the division.

Four other divisions—all tank—in the second photographic grouping have been called "training divisions" by several sources. These divisions reportedly served as special military schools which trained noncommissioned officers for other military units in the USSR and the groups of forces. Photographic analysis indicates that these four divisions are generally similar in organization and size to standard Soviet tank divisions.

Strength data are available on three of the training divisions. One source described the motorized

rifle training regiment of the training division at Berdichev in the Carpathian Military District as being at reduced strength, having only two active rifle battalions, both of which had personnel levels about half those of full-strength motorized rifle battalions. A second source described the training division at Dobele in the Baltic Military District as having most of its units at full strength, but with at least one of its tank regiments in cadre status. A third source described the artillery training regiment of the training division at Kamyshlov in the Ural Military District as at about half strength.

It appears likely that training divisions are similar to standard tank divisions and could so function in wartime. These divisions evidently are manned at about one-half to two-thirds of the level of combat-strength tank divisions, and can be considered as reduced-strength divisions. It is not clear what disposition would be made of their students upon mobilization-whether they would remain in the training divisions or be allocated to other understrength divisions.

The sources mentioned above suggest that the best equipped and trained divisions in the western USSR, excluding the combat-strength division in Belorussia, are manned at around two-thirds of GSFG levels. There is no direct evidence on the manning levels of any of the other divisions in the second photographic group. Their training activity levels, which are believed to be a significant indication of manning, are similar. A precise estimate of the manning levels is not possible, however. Most of them are probably manned at between one-half and two-thirds of GSFG levels. A few may be manned as high as 75 percent of GSFG levels.

# Classification of Soviet Divisions by Personnel Levels According to Observable Characteristics

The above analysis indicates that, although no direct means of measuring Soviet division personnel strengths is available, it is possible to classify virtually all Soviet divisions according to observable characteristics which are valid indicators of their approximate manning levels. These relationships are summarized in the following tabulation:

		e characteristics Training facilities	Estimated manning
Combat strength	85-100%	100%	at or near full strength
Reduced strength	40-75%	75-100%	50-75%
Cadre strength	25-55%	50% or less	10-30%

Using the methods derived from the analysis described above, the current manning and equipment levels of the 26 divisions in the western USSR\* considered

<sup>\*</sup> Two airborne divisions, one in the Baltic Military District and one in the Belorussian Military District, were not assessed. These divisions probably are not earmarked as part of the two reinforcing fronts, although some Soviet airborne divisions would almost certainly be used in operations against the Central Region of NATO. Both divisions are believed to be maintained at reduced personnel strength in peacetime.

# TOP SECRET

to be part of the intended reinforcements against the Central Region of NATO have been assessed. These results are summarized in the following tabulation:

## Soviet Reinforcement Divisions

	Military District							
•	Bal	tic	Belor	ussian	Carpa	athian	Tot	tal
	TD	MRD	TD	MRD	TD	MRD	TD	MRD
Combat strength	0	0	0	1	0	0	0	1
Reduced strength	3	1	8	0	. 3	2	14	3
Cadre Strength	<u>0</u>	<u>1</u>	<u>0</u>	1	<u>0</u>	<u>6</u>	_0	8
Total	3	2	8	2	3	8	14	12

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# Mobilization and Availability of Warsaw Pact Divisions for Combat Use

#### Mobilization

Official Warsaw Pact documents and the statements of human sources indicate that the Soviets and their East European allies have mobilization procedures which are similar and that they expect to fill out understrength units within a few days of the beginning of mobilization (M day). Evidence on Soviet mobilization procedures comes primarily from sources who have served in cadre divisions or other cadre units. These sources state that cadre divisions and cadre units are intended to complete their mobilization in 24 hours but that in practice exercises, mobilization usually requires 36 to 48 hours.

Only one source has reported on the mobilization procedures of Soviet reduced-strength divisions.

The source

said that at the time of the Czechoslovak crisis in 1968, his division completed mobilization by M+36 hours.

The Czechoslovak and Polish ground forces apparently have mobilization norms which are similar. According to official Polish documents and information from senior Czechoslovak and Polish the cadre divisions which constitute the Czechoslovak and Polish second echelons are to accomplish their mobilization within three days.

First-echelon divisions are to do so even more quickly. The Czechoslovak first echelon is said to require some 12 to 36 hours to become fully ready for combat. The Polish first echelon, consisting of Class A and Class B divisions (defined on page 12), is to be ready in a relatively short period, which according to the documents is somewhat less than the three days required by Class C divisions.

The evidence indicates that the official Warsaw Pact norm for mobilization of understrength divisions

is 24 hours but that somewhere between one and three days would actually be required in most cases. Within one to three days after the beginning of mobilization, virtually all divisions probably would have assembled their augmenting reservists and civilian vehicles.

# Availability

The time at which mobilized Warsaw Pact divisions would become available for use in combat would depend on several factors, including the planned movement schedules of the divisions, the availability of transportation for movement to a combat zone, the distance between the home garrisons and the theater of operations, and the order and timing in which Pact operational plans envisage their use. The highest strength divisions would not necessarily move first; some of these might be earmarked for operational reserves and move on deferred schedules. Thus, in the Soviet case, some cadre divisions could be made available for use in combat before some reduced-strength divisions.

In addition, Soviet tactical doctrine calls for employment of divisions in armies and fronts, which include nondivisional combat support and service support units. According to documentary and high-level human sources, the service support units of armies and fronts require more extensive mobilization than do the divisions. The initial use of divisions in combat, therefore, could depend on the time required to assemble a complete army including support units in the forward area.

Official documents and human sources indicate that both the Czechoslovaks and the Poles would form individual national fronts in wartime and that both plan to complete mobilization and have their forces available for combat use within one to three days of the beginning of full mobilization. Soviet forces from the Baltic, Belorussian, and Carpathian military districts are to form second-echelon fronts behind the Czechoslovak and Polish fronts and the Soviet front already located in East Germany. The

intended availability times of the second-echelon fronts are uncertain.

Information on Soviet contingency planning indicates that a major portion of Soviet reinforcement of the forward area is intended to be accomplished within about two weeks after the beginning of mobilization and that some reinforcement elements would be available for combat even before that time.

In the scenarios of a number of Warsaw Pact exercises conducted between 1965 and 1969, one or more armies from the USSR were assumed to be available for use in Central Europe as early as M+7 days and never later than M+10 days. One Soviet writer in the Penkovskiy papers, however, indicated that such an army could not be committed to combat until between M+10 and M+12 days.

Soviets have indicated that the leading elements of their reinforcements from the Carpathian Military District are to enter Czechoslovakia between M+1 and M+4 days.

| also indicated that the movement of two Soviet armies into concentration areas in Czechoslovakia could be completed by M+11 to M+14 days at the latest, the time required to move one entire army being about five days. If this information is correct, one reinforcing Soviet army could complete its movement forward as early as M+6, followed by a second army in another five days or so.

Although none of this information indicates the total time actually spent on mobilization, the speed with which the Soviets hope to accomplish reinforcement indicates that the mobilization time is relatively short for all units of the second-echelon fronts, including cadre divisions.

# Combat Effectiveness of Mobilized Warsaw Pact Divisions

The Pact has compromised in creating a force structure which economizes on manpower in peacetime but which is intended to enable it to field rapidly a large force for war. By so choosing, the Pact has accepted that a large part of the mobilized force—about 60 percent of those divisions intended for use against the Central Region of NATO—will include substantial numbers of reservists and civilian trucks. The Penkovskiy papers indicate that the Soviets see this as an undesirable but, nevertheless, essential feature of their system.

The combat effectiveness of mobilized divisions which had been at reduced or cadre strength would depend partly on the fitness and prior training of the mobilized reservists and the adequacy of civilian trucks substituted for military vehicles. It would also depend upon the ability of these divisions to provide the combat equipment and the trained commanders, staffs, noncommissioned officers, and technicians needed to form integrated units able to move, communicate, use their weapons with efficiency, and supply and maintain themselves.

Examination of overhead photography of the garrisons and training areas of Soviet divisions indicates that both combat-strength and reduced-strength divisions have more extensive facilities for training and carry out more active training programs than cadre divisions. In peacetime, however, reduced-strength divisions have only about two-thirds of their company-level units active, some of which also are maintained at reduced personnel levels. Unlike combat-strength divisions, Soviet reduced-strength divisions normally do not train and operate as fully organized and integrated units in peacetime.

Although Soviet military regulations prescribe
that reservists should receive training every two to
three years, actual adherence apparently is less
frequent. According to the Soviet
from the former reduced-strength
Division, that division called up its reservists

only once--at the time of the Czechoslovak crisis-during the five years he served with the division.
The reservists, which then constituted about half
his motorized rifle regiment's strength, ranged up
to 42 years of age and had had no military training
since their discharge from conscript service--as
much as 21 years previously. According to the

, it took one to two months to turn the reservists into good soldiers. The level of reserve
training of the 31st Tank Division is probably
typical of Soviet reduced-strength divisions. Although some variations in quality probably exist
among these divisions, their initial combat effectiveness probably would be substantially below that
of Soviet combat-stength divisions.

The evidence on Soviet cadre divisions indicates that they have lower training levels than Soviet reduced-strength divisions. In addition to having less training facilities than reduced-strength divisions, Soviet cadre divisions function in peacetime with no more than one-third of their company-level units active. Even the active units of cadre divisions have reduced personnel complements. Like reduced-strength divisions, cadre divisions normally do not train and operate as fully organized and integrated units in peacetime. Reserve training is infrequent and apparently is limited largely to small-unit training and conducted at levels not exceeding those of reduced-strength divisions. For these reasons, the initial combat effectiveness of Soviet cadre divisions would be low.

The Polish and Czechoslovak ground forces evidently have more active reserve training programs than their Soviet counterpart. Reservists apparently train annually in the divisions for which they have mobilization assignments. The division elements, therefore, are able to train as homogeneous units at least once during the annual training cycle. Consequently, Polish and Czechoslovak divisions probably will have greater initial combat effectiveness than Soviet reduced-strength and cadre divisions, although they also would be less effective initially than divisions maintained at combat strength.

- 39 TOP SECRET

#### Summary

In peacetime, 86 Soviet and Warsaw Pact divisions are located in East Germany, Poland, Czechoslovakia, and the western USSR opposite the Central Region of NATO. Examination of Warsaw Pact military writings, statements and the scenarios of Pact military exercises indicates that, in a war with NATO, the 86 divisions and their supporting forces would be organized into five fronts. Three of these fronts, with about two-thirds of the divisions, would be committed initially along a line extending from the Baltic Sea to the Austrian border. The other two fronts would form the Pact's second strategic echelon intended for later commitment to follow-up operations.

In peacetime, the Pact keeps only 34 of these divisions--28 Soviet and 6 East German--at or near full strength. The remaining 52 Warsaw Pact divisions opposite the Central Region of NATO are intended to undergo mobilization in wartime. The Pact relies on large-scale mobilization of reservists and civilian trucks to fill out these divisions and the support units which are necessary for war with NATO. This peacetime posture provides the Pact with some immediately available forces in case hostilities should begin with little or no warning and a mobilization base for a rapid expansion of forces.

### Soviet Divisions

The Penkovskiy papers, information from human sources, and analysis of overhead photography of divisions indicate that, in peacetime, Soviet divisions are maintained in three different states relative to their manning and equipment strengths and their state of training. Although there may be variations within each state, all Soviet divisions may be generally described as follows:

Combat Strength. Combat-strength divisions are at or near full wartime personnel and equipment

- 40 -						
TOP SEGRET						

strength. No mobilization is planned or required prior to their use in combat. Such divisions are generally considered to be combat ready. Because of their forward location opposite NATO's Central Region, their isolation from Soviet mobilization resources inside the USSR, and their observed high levels of training activity, the 27 Soviet divisions in East Germany, Czechoslovakia, and Poland are believed to be maintained at combat strength. Because it is similar to these divisions, one motorized rifle division in the Belorussian Military District is also believed to be at combat strength.

Reduced Strength. Reduced-strength divisions have around two-thirds of their manpower and are short between 600 and 1,400 major items of equipment, chiefly general-purpose trucks and armored personnel carriers. Only about two-thirds of the company-level units of reduced-strength divisions are active in peacetime and these may be at reduced personnel levels. The personnel shortages, and those equipment shortages which can be made up by civilian trucks, are to be eliminated by mobilization before these divisions are to be used in combat. These divisions have training facilities similar in number and type to those observed with combat-strength divisions, suggesting that reduced-strength divisions conduct training at levels comparable to that of combat-strength divi-Of the divisions in the western USSR intended for use against the Central Region, 17 are estimated to be at reduced strength--4 in the Baltic Military District, 8 in the Belorussian Military District, and 5 in the Carpathian Military District.

Cadre Divisions. Cadre divisions have around one-fifth of their manpower and are short between 1,100 and 1,800 major equipment items, primarily cargo trucks and armored personnel carriers. In a few cases, shortages probably include tanks and artillery. No more than one-third of the company-level units of cadre divisions are active in peace-time, and even these units probably are maintained at reduced personnel strength. As in the case of reduced-strength divisions, the Soviets plan to fill these divisions with mobilized reservists and civilian

trucks before using them in combat. Cadre divisions have one-half or less of the training facilities found in combat-strength divisions, suggesting lower training levels. There are 8 cadre-strength Soviet divisions intended for use against the Central Region--one each in the Baltic and Belorussian military districts and 6 in the Carpathian Military District.

## East European Divisions

All 6 East German divisions are maintained at combat strength in peacetime. Neither Czechoslovakia nor Poland maintains combat-strength divisions in peacetime. There are 10 active Czechoslovak Warsaw Pact divisions in peacetime. Of these, 8 are reduced-strength divisions which are manned at about 70 percent and which may have shortages of several hundred cargo trucks each. Two other Czechoslovak divisions are cadre divisions manned at about 30 percent of full strength and short about half their cargo trucks. The Czechoslovaks also maintain sufficient combat equipment for two additional divisions intended for mobilization in wartime, but which are not active units in peacetime.

The Polish Army probably has 8 reduced-strength tank and mechanized divisions, some of which have about 80 percent of their men and some which probably have about 50 percent. These divisions are short some cargo trucks. The Poles also have 5 cadre mechanized divisions which probably are manned as low as 20 percent of full strength. Polish cadre divisions are short most of their trucks and some major combat equipment. In addition to the 13 tank and mechanized divisions, the Poles have two small special-purpose divisions, one airborne and one amphibious. Both of these divisions probably are manned at about two-thirds strength.

#### Mobilization

In an emergency, the Warsaw Pact plans to fill out understrength divisions quickly by mobilizing reservists and civilian trucks. It is estimated that virtually all reduced-strength and cadre

divisions could be filled out within one to three days from the beginning of mobilization.

Czechoslovakia and Poland evidently intend to have all their divisions, including mobilized cadre divisions, available for combat use within three days after the beginning of mobilization. The Soviets evidently intend that all of their mobilized divisions be ready for movement within a day or so after M day. The plans for the time schedule on which divisions mobilized in the western USSR would begin movement to Central Europe are unknown. The Soviets apparently plan for at least some of the reduced-strength divisions to begin to move not later than M+3 days and expect that at least one or more complete armies will have moved by about M+6 days.

Cadre divisions currently exist in each of the three Soviet military districts slated to provide reinforcements against the Central Region of NATO. Cadre divisions constitute more than half the reinforcement divisions from the Carpathian Military District. The time when cadre divisions would become available for use in combat is uncertain. If circumstances permitted, the Soviets might prefer to delay their commitment to combat until they could be given some additional training. Consideration of the Warsaw Pact's emphasis on rapidly concentrating forces in a crisis, however, and of Czechoslovak and Polish reinforcement plans, leads to the judgment that the Soviets would not hesitate to use recently mobilized cadre divisions to ensure the Warsaw Pact a preponderance of ground forces in Central Europe.

Because of shortcomings in peacetime training of Soviet reduced-strength divisions and a relatively ineffective reserve training program, the initial combat effectiveness of such divisions would be significantly less than that of combat-strength divisions. Mobilized cadre divisions probably would have low initial effectiveness because of training deficiencies and poorer equipment. Mobilized Polish and Czechoslovak divisions probably would perform somewhat better initially than their Soviet counterparts because of the more effective reserve training programs in those countries.

	TOP SECRET	
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- 41 -

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