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DIRECTORATE OF INTELLIGENCE

Intelligence Report

Warsaw Pact Ground Forces Facing NATO

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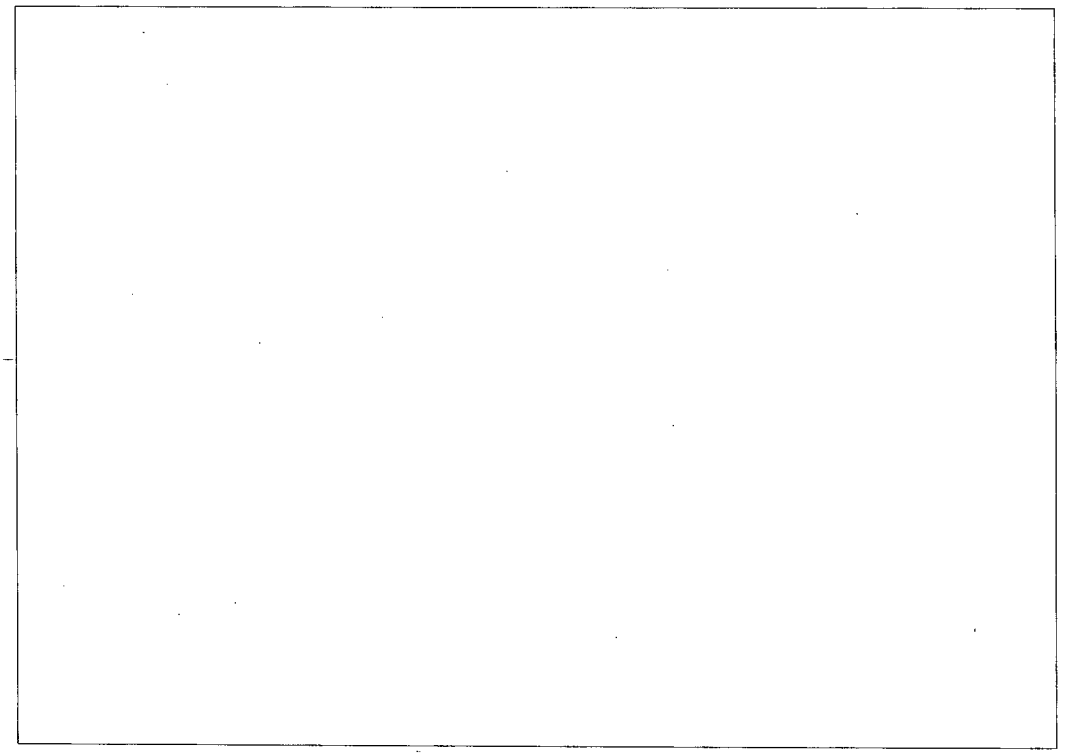

Contents

Contents
(continued)

Illustrations

Tables

CENTRAL INTELLIGENCE AGENCY
Directorate of Intelligence
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INTELLIGENCE REPORT

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Introduction

a comprehensive reassessment of the capabilities and status of the Soviet ground forces. This intelligence report describes the present state of information and analysis of these forces and gives the findings and conclusions to date of the continuing reassessment.

The report presents the results of analysis of the organization, current dispositions, and peacetime combat readiness--as measured by manning and equipment status--of the Warsaw Pact forces which are probably available for war in Europe. It summarizes what is known about Soviet contingency planning for war with NATO in the Central Region of Europe. It examines Soviet views on the likelihood of sustained nonnuclear war with NATO and assesses Soviet capabilities to conduct such a war. It also describes the general considerations which will probably guide Soviet policy toward general purpose forces in the future.

Major areas of uncertainty about the capabilities of the Soviet ground forces remain. The most

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significant gap is in the understanding of service support organization and capabilities above the level of the division. The detailed study of Soviet logistical capabilities requires different methodologies than have been applied to study of the combat forces, and depends to a greater degree on sources of information other than overhead photography.

Considerable uncertainty also remains about the peacetime personnel strengths of combat and support units inside the USSR.

The major findings and conclusions of this report on the reassessment of the Warsaw Pact ground forces and their capabilities begin on page 73.

* * * * * *

Organization of Warsaw Pact Ground Force Units

General

No official tables of organization and equipment for Soviet ground force units are available. Estimates of their structure, manning, and equipment are based [redacted] raphy, [redacted]

These data permit confident estimates of the authorized wartime strengths of tank and motorized rifle divisions, of the totals of major items of equipment actually in Soviet combat ready tank and motorized rifle divisions in East Germany, and of the size of airborne divisions.

The organization and composition of command and support echelons--armies, corps, and fronts--have been derived from these sources [redacted] and Soviet military commentary.

Tank and Motorized Rifle Divisions

Intensive analysis [redacted] has provided the basis for a high-confidence estimate of the equipment holdings of two of the combat ready Soviet divisions in East Germany, one motorized rifle and one tank. Analysis of elements of other Soviet divisions in East Germany, [redacted] supports the judgment that the two divisions examined are typical of Soviet divisions in East Germany and that the assessment of their equipment levels is accurate. The table on the next page shows the estimated personnel strengths and numbers of tanks, armored personnel carriers (APCs), artillery pieces, and other equipment which this analysis inidcates would be found in Soviet combat ready tank and motorized rifle divisions.

Table 1

Estimated Manning and Equipment of
Combat Ready Soviet Divisions

	Motorized Rifle Div	Tank Div	Heavy Tank Div *a/*
Personnel	10,000	8,000	6,000
Major Equipment Items *b/*	2,400	2,300	1,600
Tanks	186	314	225
Armored personnel carriers *c/*	200	80	20
Artillery *d/*	72	60	36
Other items *e/*	1,940	1,845	1,320

a. About six tank divisions--including one of those in East Germany--appear to be "heavy tank divisions," differing from standard tank divisions mainly in that they have only about 225 tanks, 134 of which are heavy tanks, and no infantry units.

b. Because of rounding, components do not add to the totals shown.

c. Many divisions inside the USSR do not have armored personnel carriers in these numbers. Some divisions have none at all.

d. Includes 122mm and 152mm howitzers. Mortars, recoilless guns, multiple rocket launchers, and antitank guns are excluded. Divisions inside the USSR (except those opposite China) have one-third less artillery.

e. Major equipment items include all self-propelled vehicles, except motorcycles, and all large towed items such as artillery and two-axle trailers.

Soviet line divisions are small by US standards but have about the same numbers of tanks as similar US divisions. The Soviet tank division, at about 8,000 men, has only half as many personnel as the US armored division. The Soviet motorized rifle division, at about 10,000 men, is slightly more than half as large as its nearest US counterpart, the mechanized division. Both types of Soviet divisions have considerably fewer infantry and a lower proportion of combat and service support and, although fully mobile, have only about half as many motor vehicles as do US divisions.

Soviet line divisions vary substantially in the models, types, and vintages of combat equipment which they actually possess. For example, one division on the Chinese border had World War II vintage T-34s as late as 1968. Some divisions inside the USSR have no armored personnel carriers at all. Others have only a few, and use cargo trucks to carry most of the infantry. Every Soviet division in East Germany is believed to have pontons, but a number of divisions in the western USSR have none.

Soviet divisions in East Germany receive some priority on the issue of new models of equipment. This priority does not always hold, however. As recently as 1968 at least one Soviet division in East Germany had only T-54 model tanks when a number of divisions inside the USSR had already received more modern T-62 tanks. Some motorized rifle regiments in East Germany have been completely equipped with the amphibious BTR-60 armored personnel carriers, but others have only the older BTR-152.

Organizational changes such as the establishment of antitank guided missile units have taken place in the Group of Soviet Forces in Germany (GSFG) several years before they were implemented in units inside

the USSR. These delays presumably reflect the pace of production of the new equipment required to effect such organizational changes.

a combat division, began to be reorganized and equipped according to GSFG standards only after it was selected to remain in Czechoslovakia following the intervention. It then acquired its artillery battery and received BTR-60s as replacements for its BTR-152s. It had borrowed BTR-60s from another division for the Warsaw Pact exercises in June 1968.

These differences among divisions in availability and modernity of equipment indicate that, in Soviet eyes, the requirement for large numbers of divisions outweighs the requirement for rapid modernization and uniform high quality. For example, the T-62 medium tank--after eight years of production--makes up only about 20 percent of the Soviet tank inventory. Similarly, the modern BTR-60 now fills only about one-fourth of the total APC requirement--the rest is filled by older models or simply not filled at all.

Soviet divisions have only limited quantities of essential supplies on hand. For example, extensive analysis of the Soviet divisions' mobile stocks of POL and ammunition indicates they are sufficient for only about three days of intensive combat. After this period, the divisions would lose their combat effectiveness unless full-scale logistic support were provided.

East European line divisions are generally patterned on the Soviet model, although there are substantial variations in some countries. Documents and evidence indicate that Czechoslovak and East German divisions are similar to Soviet divisions in structure. Combat ready Soviet and East German motorized rifle divisions both have about 10,000 men and 186 tanks. Soviet tank divisions have 8,000 men and 314 tanks and East German tank divisions about 8,800 men and 320 tanks. have also placed the Czechoslovak motorized rifle division at 10,000 men.

A great many observations, confirm that these tank strengths are generally correct and that they are the planned wartime strengths--in both personnel and tanks--for Soviet, East German, and Czechoslovak divisions.* Polish divisions are apparently slightly smaller. Polish mechanized divisions--equivalent to the Soviet motorized rifle division--probably have about 9,000 men and 175 tanks and the Polish armored divisions about 7,500 men and 275 tanks.

Airborne Divisions

Seven Soviet airborne divisions have been identified. Analysis their barracks and equipment parks indicates that they have, on the average, about 1,000 major items of equipment and that their personnel strength is about 6,000. All seven are in the USSR and are probably considered combat ready by the Soviets.

the airborne divisions are not assigned to field armies but are centrally controlled by the Ministry of Defense in Moscow. In wartime they would probably be allocated to fronts for specific operations. These divisions probably would require service support from the front--especially motor transport--in order to stage for an airborne operation.

Poland is the only East European country believed to have an airborne division. Information from former members of that division indicates that it is half the size of a Soviet airborne division.

* *Analysis indicate that there are some slight variations. A number of Soviet tank divisions have only 300 tanks and some motorized rifle divisions 180, the small differences depending on whether the tank regiment and battalion commanders have tanks or armored personnel carriers as their command vehicles.*

Armies and Corps

The field army is the basic Soviet and East European combat and support organization above the division. Soviet field armies have from three to five line divisions--and combat and service support units--and approximate a US corps in size and operational function. Depending on the numbers and types of divisions and support units assigned, a combat ready field army such as those in East Germany would probably range from as low as 35,000 to as high as 55,000 men, including 9,000 to 12,000 men in army headquarters and support units.

Armies are of two types: the tank army, in which all or a majority of the divisions are tank divisions, and the combined arms army, in which all or a majority of the divisions are motorized rifle. The numbers and types of support units found in Soviet field armies vary. The typical army support structure would include a brigade of six or nine SCUD tactical missile launchers, an artillery brigade of three to six battalions, an SA-2 regiment of 18 launchers (Soviet armies in East Germany each have two SA-2 regiments), a signal regiment, engineer ponton bridge and assault crossing units, and service units to provide essential transportation, maintenance, medical, and supply support.

Analysis of Soviet classified writings consistently indicate that divisions are intended to fight in armies rather than as independent units. This same evidence indicates that the Soviets intend to commit their armies to combat essentially as they are organized in peacetime. Although there is apparently nothing which would prevent changes in this basic organization, the transition from peace to war would be smoother and more efficient if changes in organization were minimized during the initial period.

The field army has some administrative as well as command responsibilities, but its service support units perform these functions at a minimal level, relying on the front rear services organization for major logistical support of the tactical units. For

example, classified Soviet writings indicate that army mobile depots are expected to carry only one or two days supplies for the army's units.

Soviet field armies in East Germany appear to have even less capability for logistical support. Two to four motor transport battalions would be required to carry even the small reserve which Soviet doctrine prescribes for an army, but only one has been identified in each army there. These shortages in transport suggest a need for some augmentation when combat is joined.

East European field armies also contain from three to five divisions and combat and service support at levels similar to Soviet armies. The East Europeans do not have tank armies, however, and their armies are usually made up of roughly equal proportions of tank and motorized rifle or mechanized divisions. East European field army headquarters do not exist as separate entities in peacetime but are formed during mobilization by previously designated personnel from the territorial military district commands. This procedure for organizing field army commands is practiced in exercises.

Soviet armies inside the western USSR generally have about the same numbers and types of combat support units as those in the GSFG. Analysis of photography indicates that most combat support units inside the USSR are kept at reduced personnel and vehicle strength in peacetime. Some of the service support units for armies there--especially motor transport, medical, and engineer construction units--apparently do not exist in peacetime and would be mobilized from the civilian economy in an emergency.

A number of divisions in the USSR are organized into separate corps. Most of these are in the southern and far eastern USSR, although part of the Soviet forces in Czechoslovakia is subordinate to a corps headquarters there. Corps are evidently similar to armies in function but appear to have less support and usually control only two or three divisions. Soviet writings indicate that in military operations a corps would be

used in a secondary role, such as on the flank of a front.

Fronts

The front is the Soviets' highest wartime field headquarters for the joint operational control of general purpose forces. No fronts exist as such in peacetime.

A front would consist of about three field armies and a tactical air army plus combat and service support. The rear services of the front are responsible for most of the administrative support of the combat units including supply, evacuation, medical service, construction, and maintenance. Little of these kinds of support is provided at division and army level--for example, the mobile stocks of POL and ammunition in both divisions and field armies would be sufficient for only four to five days of intensive combat--making the efficient operation of the front's rear services from the beginning of military operations a critical requirement.

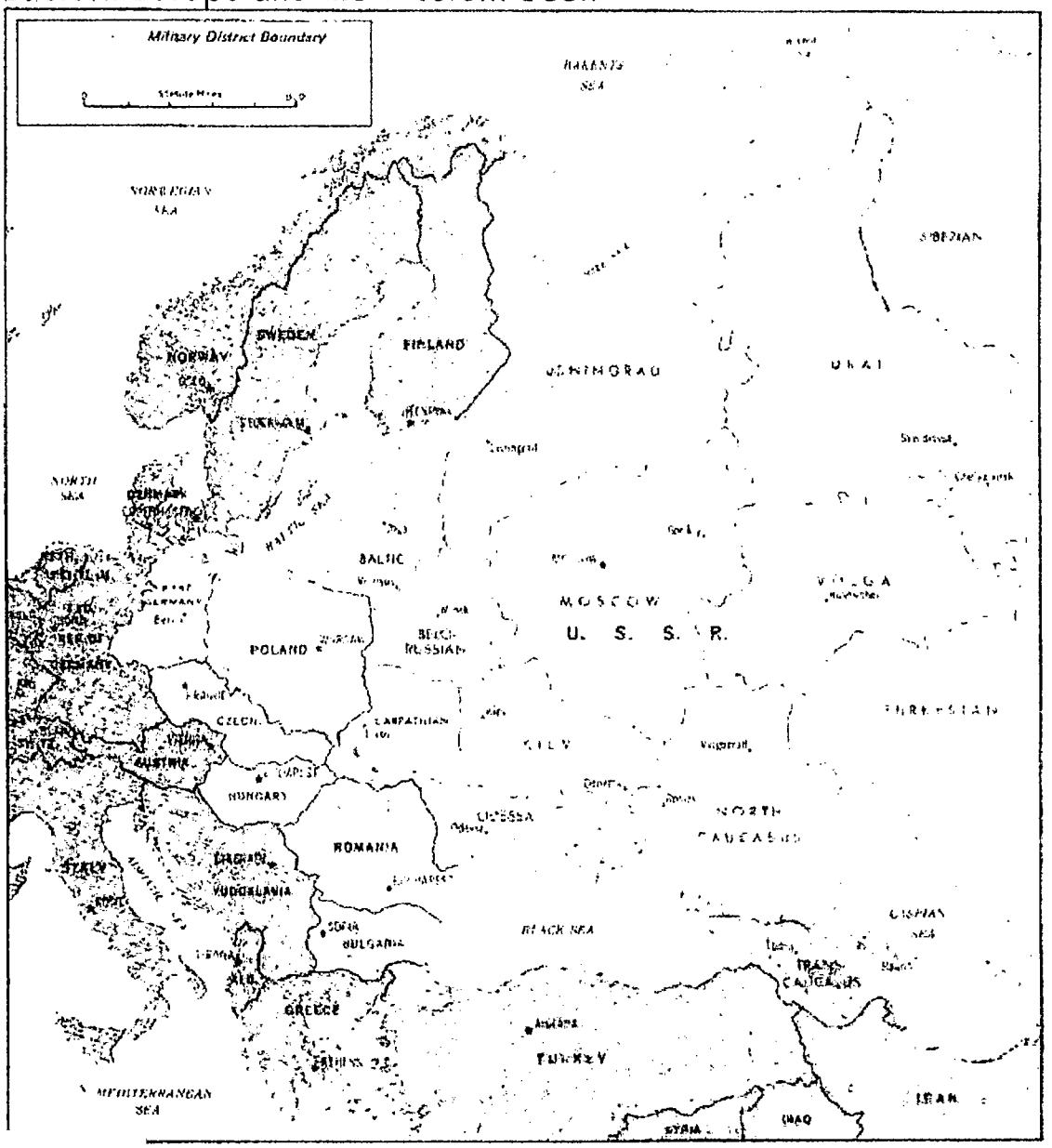
Several fronts are known to be planned for Central Europe in the event of war. In terms of combat units and combat support, the Group of Soviet Forces in Germany is virtually a front in being. The status of the GSFG rear services organization is uncertain, however, since some of the units, particularly motor transport, which would be required to sustain the 20 divisions in combat apparently do not exist. Front level headquarters and support personnel in GSFG (excluding the tactical air army) may amount to some 50,000 to 60,000 men.

The Polish and Czechoslovak military establishments are each responsible for forming a front in wartime, as is the Soviet Carpathian Military District (MD) and probably the Belorussian MD. In each of these potential front areas there are currently three or more field armies, a tactical air army, and additional combat support units. Except for the Belorussian MD, each is known to have rehearsed its wartime role in exercises. For each potential front,

except the GSFG, much of the higher command and control structure and a majority of the service support units would have to be created by mobilization.

Other potential Soviet and East European fronts probably exist in Bulgaria and the southern and far eastern USSR and possibly in the northwestern USSR. Ground armies and tactical air armies are stationed in each of these regions.

Eastern Europe and the Western USSR



Eastern Europe and the Western USSR

Soviet Reinforcement Forces in the USSR

General

The reassessment of the size and disposition of the Soviet ground forces in the USSR which are available for reinforcement of Warsaw Pact forces facing NATO has utilized information from all intelligence sources but has emphasized the systematic collection and analysis of satellite photography.

has provided the initial indication of the existence and location of most of the divisions and armies, and most of the evidence for the subordination of divisions to armies. Othe have provided important information on plans and procedures for the mobilization and movement of forces and on the manning levels of units.

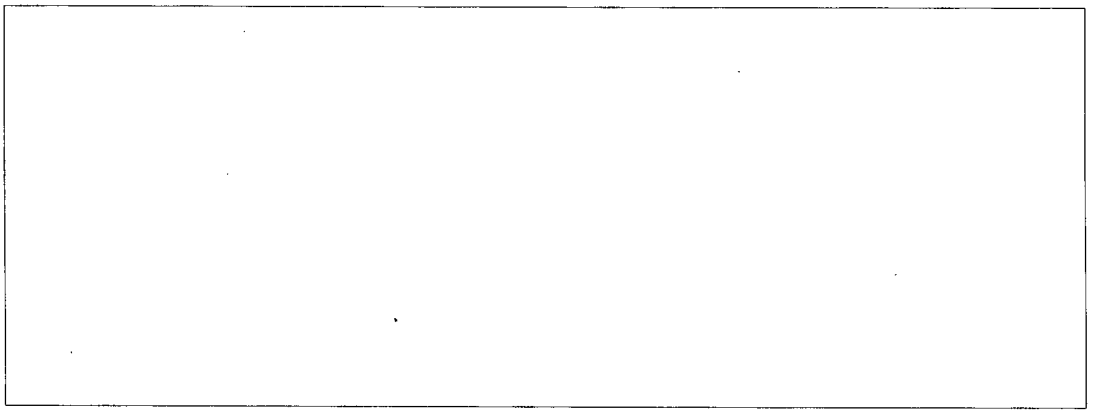
Much of the analysis to date has focused on the location of units, their identification by type, and the assessment of their equipment strengths. The information available and the methodologies employed have resulted in the location and identification of army and corps headquarters and combat units (divisions, regiments, and combat support units) in the USSR. They have also permitted confident assessment of the equipment strengths of most of these units. Assessment of personnel strengths and manning levels is more difficult because of the lack of information and the nature of the problem, but some tentative conclusions are possible and analysis is continuing.

Order of Battle

Analysis of photography has resulted in the identification of nine field armies in the Baltic, Belorussian, Carpathian, and Kiev military districts--the MDs which contain the units probably earmarked as early reinforcements for the Warsaw Pact forces now in Central Europe. These nine armies contain 32 divisions--19 tank and 13 motorized rifle. Another eight divisions, including

two airborne, are located in these districts but are not subordinate to armies. Thirty-four of these 40 divisions are judged to comprise the early reinforcement capability.

In addition, some 46 divisions in other regions of the USSR have been assessed, including 28 located in the border regions opposite China.



The five Soviet divisions from the western USSR which are currently in Czechoslovakia were assessed on the basis of their status prior to the intervention in Czechoslovakia. With the 26 Soviet divisions in East Germany, Poland, and Hungary, the total number of Soviet divisions stands at 155.

Equipment Levels of Soviet Divisions

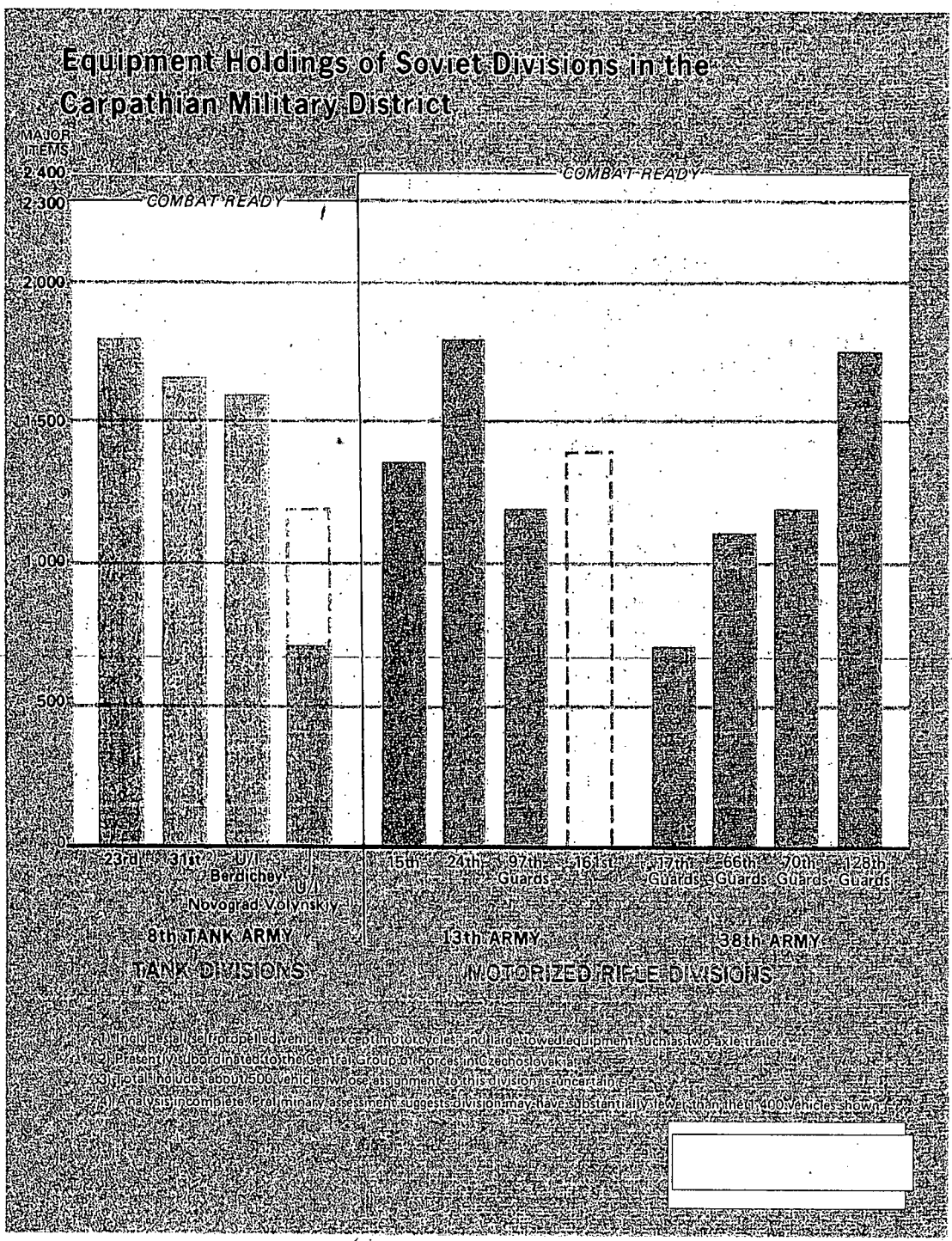
A combat ready Soviet division in East Germany has about 1,000 major items of equipment with no acceptable civilian equivalents which could be mobilized from the economy. Pared down to essentials, a Soviet division would probably still have about 800 such items. Such a division--if augmented with civilian vehicles--would probably be capable of performing most combat roles of a Soviet division. Any Soviet division in peacetime probably requires at least 300 trucks to be able to conduct limited training activity and routine housekeeping, however, and would also require that number of trucks to be able to move from its garrison to its alert area (normally about 25 km away) in an emergency. Analysis of photography indicates that even those divisions with the lowest equipment levels have several hundred trucks.

These considerations indicate that about 1,100 major items of equipment is the minimum level consistent with a viable division--one capable of being quickly mobilized and deployed. Such a division would need augmentation by 1,200 or 1,300 civilian vehicles to reach combat strength.

Seventy-nine divisions were assessed against the equipment levels of the combat-ready Soviet divisions in East Germany, and the seven airborne divisions were assessed separately. As an example, the results of the assessment of the divisions of the Carpathian Military District are shown in the chart on page 16. Of the 54 line divisions now in the western and southern USSR which were assessed, 38 have shortages in major items of equipment ranging between 800 and 1,300.

Ten other divisions are more fully equipped. Six of these are short only about 600 items. In the four others the equipment levels cannot be determined with confidence because of the difficulty of identifying all the subordinate units and excluding nearby nonsubordinate units with sufficient precision. All four are similar--in the number of troops apparently present and in the nature and level of activity apparent at the installation--to the six divisions. In addition to these ten, the five divisions which remained in Czechoslovakia after the bulk of the intervention force withdrew were assessed on the basis of photography prior to their mobilization in May 1968. They were probably also short about 600 items. The shortages in these 15 divisions were mainly in general purpose wheeled vehicles and armored personnel carriers. These divisions probably have all their tanks and artillery, although their artillery does not appear to have been increased to the new levels recently attained by Soviet artillery units in East Germany.

Six units, which appear to be combat formations with at least some of the characteristics of divisions, have shortages of 1,500 or more vehicles and probably do not possess all of the combat equipment of a division. The intended function of these units is unclear but since they probably cannot be mobilized and committed as combat effective divisions


Equipment Holdings of Soviet Divisions in the Carpathian Military District
MAJOR ITEMS
2,400
2,300
2,000
1,500
1,000
500
0
COMBAT READY
COMBAT READY
23rd
31st
Berdichev
Novograd Volynskiy
U/I
U/I
15th
24th
97th Guards
161st
17th Guards
66th Guards
70th Guards
128th Guards
8th TANK ARMY
13th ARMY
38th ARMY
TANK DIVISIONS
MOTORIZED RIFLE DIVISIONS
1) Includes all self-propelled and towed equipment except motorcycles and large towed equipment such as two-axle trailers.
2) Presently subordinated to the Central Group of Forces in Czechoslovakia.
3) Total includes about 7,500 vehicles whose assignment to this division is uncertain.
4) Analysis incomplete; preliminary assessment suggests division may have substantially fewer than the 11,400 vehicles shown.

without months of delay they are probably not part of the short-term Soviet capability against NATO.

Measured against the Soviet divisions in East Germany, 48 of the 54 divisions assessed in the western and southern USSR would be capable of early deployment. The four airborne divisions there are probably ready for deployment as well.

Warsaw Pact Manning Levels

reliable evidence indicates that equipment and personnel strengths of East European combat units are related, and suggests that Soviet units follow the same pattern.

This evidence confirms that in peacetime Polish units are in three readiness categories--"combat ready", "reduced strength", and "cadre strength." Reliable evidence indicates that Polish "combat ready" units are at 80 to 100 percent personnel strength and virtually fully equipped; "reduced strength" units require substantial mobilization of reservists and civilian vehicles and a "short time" to become combat ready; and "cadre" units require much greater numbers of reservists and vehicles and their assembly time is measured in days.

the Czechoslovak Army had combat ready divisions which were at combat personnel strength and fully equipped and also low strength divisions which were manned at 15 to 30 percent and short half their trucks. The low strength divisions were to be filled out quickly with civilian trucks and reservists in an emergency. best Czechoslovak divisions were kept at 80 percent personnel strength.

There is only a small amount of on the peacetime strengths of Soviet units Motorized Rifle Regiment (MRR) of the 31st Tank Division, which deployed from the

Carpathian Military District during the Czech crisis and is now in Czechoslovakia--as at about 50 percent personnel strength before the Czech crisis. acquired about 30 civilian trucks and large numbers of reservists when it was mobilized in May 1968.

the 31st Tank Division was a "first line" division and as combat ready as any in the Carpathian MD. This is supported by the assessment of equipment levels of Soviet units, which revealed that the 31st Tank Division had one of the highest equipment and activity levels. (See chart, page 16.) The assessment of the 31st Tank Division indicated that it was probably short only about 650 vehicles and that the MRR was short about 30. Moreover, this division was the one selected from the 8th Tank Army, along with a high-strength division from each of the other two Carpathian MD armies, to make the initial military demonstrations against Czechoslovakia in May and June 1968. The 31st Division was selected, along with four divisions from the Baltic, Belorussian, and Odessa military districts, to form the Central Group of Forces in Czechoslovakia.

23rd Tank Division, located at Ovruch in the Carpathian MD, was also at half personnel strength. indicated that this division was short about 500 vehicles, and that the 321st MRR was probably underequipped.

tank units were kept at higher personnel strength in peacetime than motorized rifle units. In particular, tank crews were complete because of the training required to maintain proficiency.

This consideration would not necessarily apply to other personnel in a tank unit. Tank regiments, even in these two relatively well-equipped divisions, were short substantial numbers of vehicles, suggesting that at least some personnel shortages exist in tank units. The low strength of motorized rifle

regiments and the shortages of equipment for support units in tank divisions suggests that supporting elements are at low manning levels, probably 50 percent or less.

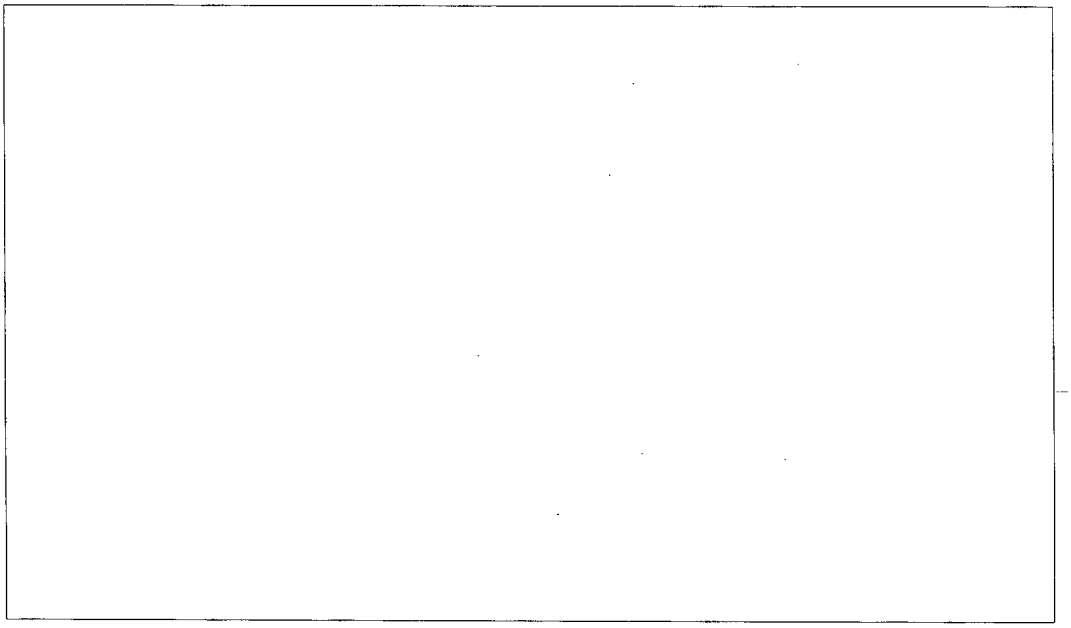
Based on these considerations, the pre-mobilization personnel strength level of the 31st Tank Division could have been as low as 55 percent. Even if the tank regiments were at full strength, the division probably would have had only about 75 percent of its personnel. If they are typical of the best motorized rifle units, motorized rifle divisions having the highest equipment levels are also manned in peacetime at 50 percent.

divisions which presently have equipment shortages of between 800 and 1,300. One division had about 2,000 men. The other in the Carpathian MD, the division was "demobilized" in 1958 and that only officers and a few enlisted men were retained. The equipment was put into storage at the garrison.

Both Divisions were mobilized during the Czechoslovak crisis. Prior to the mobilization the had been assessed as having about 1,500 items of major equipment (a shortage of about 900) and the as having about 1,200, half its estimated complement. After mobilization each had about 2,400 items, including large numbers of civilian trucks.

Thus the available evidence suggests that a wide range of manning levels--from as low as 20 percent up to perhaps 70 percent--may exist in the peacetime Soviet divisions inside the USSR which are probably capable, because of their relatively high equipment levels, of early deployment. The evidence is insufficient to determine whether the 20 to 70 percent range is a continuous spectrum or whether the divisions fall into groups according to strength levels.

The ten divisions which had equipment shortages of about 600 would appear to form a group, with manning levels perhaps ranging between 50 and 75 percent. The 38 divisions with equipment shortages between 800 and 1,300 appear to be a more heterogeneous lot. These generally have the lowest apparent activity levels. A few, however, appear to have activity levels similar to the divisions with equipment shortages of only 600, suggesting that they may have more than 50 percent of their personnel.



The paucity of direct evidence indicates that a broad range of uncertainty is appropriate in estimating manning levels of Soviet divisions. At this stage of the reassessment, 50 to 75 percent appears reasonable as the probable personnel strength range for those divisions with equipment shortages of 600 items or less and 20 to 50 percent as the probable range for divisions with equipment shortages between 800 and 1,300. A few divisions in each group may have higher strength levels.

Those divisions with shortages of 1,400 or more probably have only about 10 percent of their personnel, consisting of officers and small enlisted caretaker

complements. For convenience, they have been designated "cadre divisions." The role the Soviets see for these divisions is unknown, but some have been used as a base for expansion of the forces on the Sino-Soviet border.

Soviet usage of the term "cadre" is ambiguous and inconsistent. The only mention of cadre divisions in field armies was a statement by Lt. Gen. S. Andryushchenko in an article entitled "The Deployment and Forward Movement of a Combined Arms Army in a Border Military District in the Initial Period of a War." He stated that

> ...we studied the combined arms army made up of four or five divisions (two or three of them up to strength and the rest in cadre form or at reduced strength)....

This statement implies three distinct categories of division, but in fact may only indicate that the author was uncertain of the exact status of the divisions not up to strength or that he considered the terms "reduced strength" and "cadre form" synonomous.

the 17th Guards Motorized Rifle Division in the Carpathian MD was called a cadre division. Analysis shows that it is short about 1,700 vehicles and has barracks capacity for only about 1,800 men, most of it inactive. two motorized rifle regiments of the 128th Guards Motorized Rifle Division of the Carpathian MD were called cadre units. This division has been assessed as short only about 600 vehicles, however, and therefore as probably being at 50 to 75 percent manning. It was one of the divisions selected to threaten Czechoslovakia in May-June 1968, and also participated in the intervention.

the 38th Army--to which both the 17th and 128th Divisions were subordinate--was called a cadre army. This is the only instance in which the term cadre has been applied to an army. One of its four subordinate divisions has been assessed as a cadre division but the other three probably are

CATEGORIES OF WARSAW PACT DIVISIONS

For the purpose of categorization those Warsaw Pact divisions which would be available for either immediate or early deployment can be described in the following terms. The definitions apply also to East European divisions.

Combat Strength (Category IA) divisions have all or most of their equipment and 80 to 100 percent of their authorized personnel. Soviet divisions in East Germany are believed to be kept at or near full strength, and are available for immediate use.

Reduced Strength (Category IB) divisions have about 75 percent of their equipment and 50 to 75 percent of their authorized personnel. They could be filled up with reservists, augmented with up to 600 civilian vehicles, and ready for movement within about 24 hours.

Low Strength (Category II) divisions have about 45 to 65 percent of their equipment and 50 percent or less of their authorized personnel. A few may be manned as low as 20 percent. They could be filled up with reservists, augmented by up to 1,300 civilian vehicles, and could probably be ready for movement to a theater of operations within a week.

Cadre Divisions are those units which have no more than one-third of their vehicles and which appear to be short substantial amounts of combat equipment as well as trucks. Cadre divisions probably have only officers and small enlisted caretaker complements--probably no more than 1,000 personnel in all. These units could not be made into combat strength divisions comparable to line divisions through short-term mobilization. The intended purpose of these units in wartime is unknown but they are probably not intended as early reinforcements and are probably not a part of Soviet short-term capabilities against NATO.

manned and equipped at levels sufficient to enable rapid mobilization and early deployment. The 38th Army Headquarters itself was deployed to Czechoslovakia during the intervention and later provided the basis for the formation of the headquarters of the Central Group of Forces there. This further illustrates the uncertain meaning of the term cadre when used by the Soviets to describe units.

a cadre motorized rifle regiment which was located at Simferopol in the early Sixties. This unit's officers were mainly assigned to jobs outside the regiment and had only two active companies of enlisted men, which were used to maintain and guard the installation and equipment.

Mobilization in Soviet Planning

The Soviet system of military preparedness relies heavily on the rapid augmentation of low strength units with large numbers of men and vehicles mobilized from the civil economy, and the capacity of units to mobilize has to be taken into account in assessing their availability for reinforcement. The degree of reliance on reservists and civilian vehicles in reaching full strength affects the fighting capabilities of the unit, and it is necessary, if difficult, to consider both availability and combat effectiveness when assessing the readiness of Soviet units.

This does not suggest that the Soviets do not value quality. They apparently have concluded, however, that quantity and speed of concentration are so critical as to outweigh most other considerations.

Classified Soviet writings on mobilization and deployment have been reassessed in the light of new evidence on Soviet and East European forces. In addition to the assessments of divisional equipment and manning levels using photography, this evidence includes revised Warsaw Pact war plans (see the section on the Warsaw Pact Mission, pages 47 to 55), analysis of the mobilization and deployment during the Czechoslovak crisis, and authoritative statements on plans and procedures for mobilization and deployment of both Soviet and East European forces.

The 1961 issues of the classified Soviet periodical *Military Thought* are the most recent Soviet documentary sources on combat readiness. The primary source, Maj. Gen. Ya. Shchepennikov, the author of "Support of the Strategic Concentration and Deployment of the Armed Forces in Respect to Transport," stated:

> In speaking of strategic echelons, we mean that the first of these consist of the forces and weapons necessary for achieving the strategic aims of the initial period of the war; it is divided into several (not less than three) operational echelons. The first includes the troops and materiel that are in a full state of readiness for immediate operations, the second is the forces and weapons designated for increasing the efforts of the initial operations with readiness for proceeding to areas of concentration after several days, the third is the forces and weapons to be used only several weeks after the beginning of full mobilization for the development of the subsequent operations of the initial period of a war.

The forces Shchepennikov had in mind for the second and third operational echelons are not further defined. His description conforms most closely to the assessment of equipment holdings of Soviet units if his second echelon is taken to mean those divisions which have equipment shortages of 600 vehicles and which may be at from 50 to 75 percent personnel strength, and his third echelon to include all the remainder except the cadre divisions. Considering that cadre divisions probably cannot be made combat effective without extensive buildup and training, it is less likely that most of the western USSR field armies--all except a few cadre divisions--are the second echelon and only the cadre divisions and some rear services units are the third echelon.

In the book *Military Strategy*, General Sokolovskiy identified three categories of units in terms of strength, but did not state how the lowest category was to be employed. Sokolovskiy appeared to include Soviet forces in Eastern Europe in his category

"designated to conduct initial operations and stationed in the border districts":

> ...Some of the ground force units and formations designated to conduct initial operations and stationed in the border districts... are maintained in peacetime at strength adequate to permit the execution of the main tasks of the initial period of the war. Another portion of these forces has a short mobilization period, enabling them to participate in the initial operations; and, finally, a certain portion is kept at reduced strength in peacetime.

Most other authors discuss only two categories of readiness in the context of early front operations. The clearest statement is by Maj. Gen. A. Klyukanov in "The Most Urgent Problems of Training Command Personnel and of Increasing the Combat Readiness of Border Military District Staffs":

> The demand for full mobilization of various large units within the shortest time is especially important for the formations of border military districts, because the speed of intensifying the efforts of first echelon troops, consisting of a limited number of divisions of increased combat readiness, will depend on the period required for fully mobilizing large units and units of reduced strength, from which, as a rule, the second echelons and reserves of armies will be created.

and

> Thus, in the peacetime composition of troops of a military district there are line divisions (of increased combat readiness) and divisions of reduced strength. The field command of an army, army units, and front units are also kept at reduced strength.

Most of the Soviet writings taken alone are ambiguous in some particulars. They are consistent, however, in their statements that two categories of

units in the border districts would be involved in the so-called "initial period" of a war with NATO. Although some writers, including General Gorbatov, wrote in terms of months, most Soviet authors in their classified writings consistently describe the initial period--which was to end with the arrival of Soviet forces at the English Channel--as lasting 10 to 20 days. The inference is that this projected time period was a point of doctrine and a fundamental element in Soviet planning.

These writings also indicate that Soviet military authorities in the early Sixties took it for granted that low strength divisions in the western USSR could be quickly mobilized and deployed against NATO. More recent evidence on East European and Soviet forces suggests that they still think so.

provide good evidence that both the Polish and Czechoslovak armies include divisions whose personnel and equipment strengths, while low, are higher than those of Soviet cadre divisions. The sources indicate that these low strength divisions are intended to be mobilized and committed to combat within a week or less.

Soviet Mobilization Procedures

The capability to accomplish such a rapid deployment depends in large part on the effectiveness of the mobilization system. Good information on the Soviet mobilization system and its capabilities has been acquired during the past year or so.

Several former Soviet citizens have described the procedure for mobilizing civilian vehicles. Essentially, it involves the designation of selected civilian motor transport organizations in cities throughout the USSR as organized reserve motor transport units (Avtokolonna). These units, which reportedly have 350 to 500 trucks each, are under military supervision and are periodically subjected to test exercises. Their personnel are qualified reservists and special efforts are made to maintain their vehicles in good condition. Preliminary analysis indicates that Avtokolonna have been established in large

numbers throughout the USSR--about 78 have been identified thus far, representing some 27,000 to 39,000 vehicles.

The Czechoslovak crisis provided the only recent large-scale test of Soviet mobilization and deployment procedures. About 20 divisions were mobilized, including some 11 of those with low peacetime manning and equipment levels. At least five armies were apparently mobilized--three of them and about ten of the mobilized divisions were used against Czechoslovakia. In all, at least 125,000 Soviet reservists and 20,000 trucks were called up.

Three divisions from the Carpathian MD were mobilized in early May and used in the pre-intervention pressure campaign against Czechoslovakia. [redacted] the mobilization and deployment of the [redacted] MRR of the 31st Tank Division, one of the units involved. [redacted] first alerted at Zhmerinka on the afternoon of 7 May, mobilized its reservists and civilian trucks during that night, and moved out by road and rail to Uzhgorod the following night.

After mobilization, the regiment still had vacancies for some 60 noncommissioned officers. These were supplied from a division at Berdichev after the unit had arrived at Uzhgorod.

The reservists, which then made up about half the 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. The regiment had only about two-thirds of its complement of armored personnel carriers and one-third of these were obsolete BTR-152s, which are underpowered and are not amphibious. The regiment had not yet been equipped with antitank guided missiles and it had not yet had its artillery increased to the level of the Soviet forces in Germany.

The 31st Tank Division would probably have been significantly less combat effective than a GSFG division had it been obliged to fight in Czechoslovakia. It had successfully accomplished the mission assigned

it, however--it had mobilized and deployed in a remarkably short time and was evidently prepared to commit its 300 tanks to combat.

The main mobilization period in preparation for the intervention probably began on 17 July

The actual call-up of reservists and civilian equipment began on 23 July, with the announcement of a "rear-services exercise" which terminated on 10 August. By this time, the initial deployment of forces from the western USSR in preparation for the invasion had been completed.

In the Czechoslovak case, when the Soviets could set the pace themselves, a partial mobilization and reinforcement was accomplished in 18 days of overt activity, or 24 days if the probable preparatory phase is included.

There is good evidence that the invasion forces received logistical support through ad hoc arrangements with the Soviet Groups of Forces in Germany and Poland and possibly Hungary, and the July mobilization of the rear services organization was probably intended to provide the support necessary if hostilities had developed.

the Warsaw Pact's contingency plans call for the Soviet Carpathian Front to begin arriving in Czechoslovakia on the fourth day of hostilities,

Maj. Gen. P. Stepshin, in a 1961 article entitled, "On Regrouping a Combined Arms Army From the Depth of the Country in the Initial Period of a War," apparently believed that armies from the western USSR

could complete their mobilization and reinforcement in about 10 to 12 days:

> ...mobilization will begin only on the eve or at the beginning of the war. In this case, an army which is moving forward while regrouping at a distance exceeding 1,000 to 1,500 km will be able to participate only in the second and subsequent operations of a front....
>
> An army which is...no more than 1,000 to 1,500 km from the line of the front, and which succeeds in completing its mobilization before the beginning of military operations, or which is in a state of constant readiness, will be able to join the complement of the front approximately as the fulfillment of the subsequent task of the first front operation is beginning, i.e., on the fifth to seventh day of the war.

On balance, the evidence indicates that the Soviets believe they could complete the essential elements of reinforcement in Central Europe within about ten days if the need were sufficiently urgent. Their performance during the Czechoslovak crisis suggests that they would plan to accomplish a buildup at a more deliberate rate if circumstances permitted.

The most time-consuming and critical aspect of mobilization is the organization and filling out of the front and army rear services. There is abundant evidence that both the Soviets and the East Europeans rely mainly on mobilization to provide the bulk of the service support organization at front and army level, and these units are the least ready in peacetime. Important elements of the rear services exist only on paper or as portions of the civilian economy. Although low strength divisions can probably be mobilized and deployed in a matter of days, they cannot be sustained in combat more than a few days without extensive logistical support by the front rear services.

The Warsaw Pact is probably capable of mobilizing the men and vehicles required to organize the five fronts intended for Central Europe in a matter of days if the process is not interrupted by hostile military action. The complete integration of the mobilized units as functioning, combat effective units in a theater of operations, particularly at the front level, is likely to require more time. In an emergency the mobilization of the line divisions and combat support of the Carpathian and Belorussian fronts and their movement into Central Europe could probably be accomplished in 10 to 14 days, although some important elements of the army and front rear services would still be incomplete. In a situation where they could control the timing of events, the Soviets would probably plan to take at least three weeks to complete the reinforcement.

In planning a deliberate aggression, the Soviets would probably organize the theater of operations differently. They would probably replace the Czechoslovak and Polish fronts with mainly Soviet striking forces and would probably require considerably more than three weeks to complete the mobilization and deployment of the combat units and support services this would require.

Forces in Eastern Europe Facing NATO

Forces Opposite NATO Central Region

The Warsaw Pact forces available for early use against the NATO Central Region include those Soviet and East European armies, divisions, and front level support units in East Germany, Czechoslovakia, and Poland and in the Baltic, Belorussian, and Carpathian military districts of the USSR.

In addition to these forces, in the Kiev Military District the Soviets maintain what is probably a strategic reserve available for use against either the Central or Southern NATO regions.

The Soviets also have forces in Hungary whose intended wartime role is unknown. Their location is such that they are available for use either in central or southern Europe, and they may be part of the strategic reserve.

After mobilization and reinforcement, the Warsaw Pact could deploy an estimated 1.3 million men against the NATO Central Region. The main striking element of this force would consist of about 20,000 tanks supported by tactical missiles and rockets, about 1,800 ground attack and reconnaissance aircraft, and some 5,800 artillery pieces. Details of this force are presented in the table on page 32.

Soviet Front in East Germany

The Group of Soviet Forces in Germany (GSFG) is by far the largest of all the potential Warsaw Pact fronts and is the only one which is believed to have all of its divisions and combat support units sufficiently manned and equipped to go into combat without mobilization of additional men and vehicles. Even the GSFG might require augmentation of its motor transport to sustain an offensive.

Table 2

Warsaw Pact General Purpose Forces Available for Early Commitment in Central Europe

Currently Available Forces	Armies: Combined Arms	Armies: Tank	Armies: Tactical Air	Divisions: Category IA	Divisions: Category IB	Divisions: Category II	Estimated Wartime Strength: Men	Tanks	Aircraft: Ground Attack and Reconnaissance a/	Aircraft: Air Defense b/
GSFG and East German Army	5	2	1	26			405,000	6,500	440	660
Czechoslovak Front	3		1	7		5	180,000	3,000	250	320
Carpathian Front c/	2-3	1	1	5	4	6	230,000	3,400	240	150
Polish Front	3		1	11 d/		4	215,000	2,800	260	680
Northern Group of Forces in Poland			1	2			35,000	600	180	110
Belorussian Front	1	2	1	1 e/	2	8	165,000	2,800	180	110
Baltic Military District	1		1	1 e/	2	2	60,000	1,000	210	80
Total	15-16	5	7	53	8	25	1,290,000	20,100	1,760	2,110
Strategic Reserve										
Kiev Military District	1	1	1			10	110,000	2,500		80
Southern Group of Forces in Hungary	1		1	4			55,000	1,000	130	110
Total Available	17-18	6	9	57	8	35	1,455,000	23,600	1,890	2,300

a. Includes fighter-bombers, light bombers, and aircraft with a reconnaissance mission.
b. Fighters having a primary mission of air defense which are in Soviet tactical air armies would probably operate primarily in support of Soviet ground forces. Air defense units of the East European members of the Warsaw Pact are responsible primarily for air defense of national territory, but would probably also fly missions in support of battlefield operations.
c. Includes the Central Group of Forces in Czechoslovakia, which approximates a field army.
d. Includes an airborne division and an amphibious assault division.
e. Airborne division. Employment centrally controlled by Moscow.

TOP SECRET

The GSFG has five field armies--two tank and three combined arms--with a total of 20 Category IA divisions (categorization of divisions is explained on page 22). The 1st Guards Tank Army and the 3rd Shock Army, each with four tank divisions and one motorized rifle division, are in central East Germany and form the principal striking force of the front. The 2nd Guards Army, with two motorized rifle and one tank division, and the 8th Guards Army, with three motorized rifle divisions and one tank division, are on their flanks. The 20th Guards Army, with three motorized rifle divisions, is concentrated around Berlin. The front's air support would be provided by the 14th Tactical Air Army (formerly designated the 24th), by far the largest Soviet tactical air force and the only one containing an assault air transport regiment.

In an emergency, the Soviet front would probably absorb the two East German armies and their six Category IA divisions. The East German forces have frequently exercised with GSFG in such roles. Although the East German divisions are at combat strength, some mobilization of vehicles and personnel would probably be required to complete the headquarters and support elements of the armies.

With its East German allies, the front organized from GSFG would probably have about 405,000 men (including 90,000 East Germans) and 6,500 tanks. It would be supported by some 440 ground attack and reconnaissance aircraft, 175 nuclear-capable missile and rocket launchers, 1,900 artillery pieces (mostly light or medium caliber and none self-propelled), and 400 multiple-tube rocket launchers.

GSFG training exercises are apparently designed to approximate as nearly as possible the wartime roles of the participants and thus serve as rehearsals. Practice alerts are held frequently, and divisions are reportedly required to be capable of assembling outside their garrison areas in combat ready condition in two hours. To meet this standard, the Soviets follow such practices as maintaining full combat loads of ammunition and POL on vehicles, and strictly controlling the whereabouts of troops during off-duty hours.

On the whole, GSFG has good potential for either defense in depth or large-scale assaults with massed armor. Its infantry strength is low in proportion to its armor by US standards, however, and a number of its divisions do not yet have armored personnel carriers (APCs) in sufficient numbers or of appropriate design to match the speed and flexibility of the tank forces.

Although Soviet tactical doctrine emphasizes infantry engaging in combat in moving APCs, detailed analysis of photography indicates that GSFG has less than half the modern APCs its motorized rifle battalions require. About half the APCs are of the older BTR-152 type, which is not amphibious and has poor off-road mobility. These shortages tend to disrupt small unit integrity and result in crowding of the riflemen in the vehicles, hindering weapons use.

GSFG divisions are capable of only about three days of intensive combat with their organic mobile supplies, and depend on the early institution of full-scale logistical support from higher echelons --army or front--to maintain offensive momentum. This support must be provided mainly by the front since the armies have only a small mobile reserve.

The GSFG front level organization probably exists in peacetime. Its logistic capabilities are not clearly defined, however, since some of the units which would be essential to perform these services have not been identified. For example, only one POL pipeline brigade and one motor transport regiment have been identified. The pipeline brigade might be capable of supplying most of the POL requirements of GSFG's ground armies, but it would not be able to supply the additional 4,000 to 6,000 tons of fuel a day which the tactical air army attached to GSFG would require if its aircraft began operating from fields outside East Germany. The GSFG motor transport regiment, with about 300 to 350 trucks and trailers, has a lift capacity of only about 1,200 to 1,400 tons. This appears inadequate to transport the 8,000 to 10,000 tons of non-POL supplies which the 20 GSFG divisions would consume in each day of a sustained offensive.

A large truck park containing some 900 trucks and trailers has been identified near Dresden These vehicles are probably military, but their subordination and intended role are unknown. If they are available to GSFG, they would significantly augment its logistical capacity. There is no other evidence of Soviet planning to augment GSFG's limited motor transport.

If the Soviet motor transport units which have been identified in East Germany are the only ones there, the GSFG would be incapable of sustained combat without substantial augmentation. Such an augmentation could be accomplished in three or four days by mobilized civilian motor transport from the USSR or the Soviets might plan to requisition East German vehicles.

Czechoslovak Front

Prior to the Soviet intervention in August 1968, the Czechoslovaks were responsible for organizing a front to cover the Warsaw Pact southern flank in the Central Region. the front was charged with the mission of securing crossings over the Rhine in its zone of operations. The Soviets probably actually expected it to do no more than wear down NATO forces and defend Czechoslovakia long enough for Soviet reinforcements to get there.

The Czechoslovak forces include three field armies and a tactical air army. There are two field armies in western Czechoslovakia, one with four divisions and the other with three. Prior to the intervention these divisions and their support units were probably Category IA (manned at 80 percent strength or better and fully equipped for combat). A personnel reduction of some 20 percent took place in the Czechoslovak Army after the intervention and probably affected these divisions to some extent. There is no evidence whether this reduction has subsequently been made up. In an emergency, however, these units are apparently expected to deploy into combat without reinforcement. If time permitted they could be filled up with reservists.

The third army, located in eastern Czechoslovakia, was in cadre status before the intervention. the cadres of the four divisions, each at 15 to 30 percent of wartime strength, were consolidated under two commanders in peacetime for economy. The combat equipment for all four divisions and the army support units was stored in eastern Czechoslovakia, but only about half the wartime requirement of wheeled vehicles was on hand. In an emergency, the Czechoslovaks planned to fill up the army and divisional units with reservists. The additional wheeled vehicles needed, and their drivers, were to be requisitioned from the civilian economy.

A tank division which had been located in western Czechoslovakia and had been at combat strength was moved to the eastern area in order to make room for Soviet forces. Its current readiness status is unknown, but its removal to a rear area previously occupied only by low strength units suggests that it may no longer be maintained on a ready status.

the Czechs planned to complete their mobilization in three days. In that time they expected to deploy their two western armies into combat and assemble the army from eastern Czechoslovakia. The Czechs are probably capable of deploying their two western armies within three days or less, but their plan to complete the mobilization and deployment of the third army and of the front support organization during the same time period is less realistic since it depends on the successful completion of complex procedures. These include the transfer of numerous officers and NCOs from peacetime activities and their integration into the front and army organization and the mobilization of some 40,000 reservists and as many as 10,000 vehicles. Such a mobilization has never been fully tested, and would probably require a week or more.

When fully mobilized, the Czechoslovak front would consist of about 180,000 men and 3,000 tanks. It would be supported by 250 ground attack and reconnaissance aircraft and, according to Czech plans, about 40 missile and rocket launchers, 750 artillery pieces, and 150 multiple-tube rocket launchers.

Czechoslovakia will probably continue to maintain its armed forces at about their current size and these forces will probably be available to the Warsaw Pact. Because of the intervention and subsequent events, the Soviets probably will judge the reliability of the Czech forces as low for some time. The Soviets, however, evidently still see a Warsaw Pact role for Czechoslovakia since the two Czech armies on the western frontier with NATO have remained in place.

The Soviet Central Group of Forces (CGF) in Czechoslovakia appears to be intended primarily to manifest a Soviet military presence and maintain Soviet lines of communication into Czechoslovakia from East Germany, Poland, Hungary, and the USSR. The five divisions in the CGF probably have a secondary mission of reinforcing or replacing Czechoslovak units in their Warsaw Pact role until the Soviets are satisfied with the reliability and combat effectiveness of the Czechoslovak front. The CGF consists of three of the seven first-line motorized rifle and tank divisions previously stationed in the Baltic and Belorussian military districts, and one division each from the Carpathian and Odessa military districts. There is no evidence that the Soviets are increasing their own forces in the western USSR to offset the decrease in Czechoslovak reliability and effectiveness or to compensate for the reduction in forces in some areas when the CGF was created.

There are no indications so far that the Soviets are forming replacement divisions in the vacated garrisons of these divisions in the USSR. Barring such replacement, Soviet reinforcement capability on the axis of the Belorussian front--including the Baltic divisions--will remain reduced from 16 to 13 divisions. The Soviet capability to reinforce in Czechoslovakia has been increased from 12 divisions

to 16--one of the five divisions now in Czechoslovakia was formerly located in the Carpathian military district and already allotted to this front.

Carpathian Front

Before the intervention in Czechoslovakia the Soviets had planned to form a front from the Carpathian Military District to take over from Czechoslovak forces after the initial hostilities in the Central Region. This front was to be formed from existing units in the Carpathian MD, filled out by mobilization. The forces there consist of three field armies, a tactical air army, and some combat and service support units.

The three field armies include the 8th Tank Army, which now has three tank divisions, and two combined arms armies, the 13th and 38th, each with four motorized rifle divisions. Two of the three tank divisions in the 8th Tank Army and the army's combat support units probably are capable of being mobilized and deployed within 24 hours, but its service support units are probably at low strength and may require more extensive mobilization of personnel and vehicles to reach combat strength. The third tank division is probably also at low equipment and personnel levels, and would probably need a few days to mobilize.

The 13th and 38th armies each have one division which is probably capable of being mobilized and deployed within 24 hours. Five of the six remaining motorized rifle divisions and the combat and service support units of the armies are probably at low personnel and equipment strength but could probably be mobilized and available for deployment in a few days. One cadre strength motorized rifle division in the 38th Army probably is short substantial amounts of combat equipment as well as trucks and personnel and would not be capable of early deployment.

In addition to its divisions, each of the Carpathian armies has a Scud tactical missile brigade, an artillery brigade, an SA-2 surface-to-air missile regiment, and an engineer ponton and assault crossing regiment. One of the combined arms armies probably also has a separate heavy tank and assault gun regiment.

Front support units include two artillery divisions of about 160 guns each (both of which are probably at reduced personnel strength and lack most of their general purpose trucks), a Scud brigade, an SA-4 Ganef mobile surface-to-air missile unit, and a tank transporter unit which could carry about three-fourths of the tanks in one tank division. The command and control organization of the Carpathian Front and most of its front level support units are probably manned and equipped at no more than half strength.

Analysis of the units and activities of the Carpathian MD indicates that it has a higher level of combat readiness than any other military district in the USSR. The three armies could probably complete the mobilization and deployment into Czechoslovakia of their combat elements in about one week. The service support elements of the armies and the front support units probably would require an additional week to move up.

During the Czech crisis, the 38th Army controlled three divisions from the Carpathian MD and one from the Odessa MD which threatened and later intervened in Czechoslovakia. These included the two Category IB divisions of the 13th and 38th armies and one Category IB division from the 8th Tank Army. Two of the divisions which the 38th Army controlled--the 31st Tank Division from the 8th Tank Army and the 48th Motorized Rifle Division from the Odessa MD--stayed in Czechoslovakia as part of the ground force element of the Central Group of Forces.

In addition to the three Category IB divisions in the Carpathian MD which were mobilized in early May 1968, a portion of the forces there were mobilized under cover of the July-August rear services exercise. About three Category II divisions of the 13th Army were mobilized at that time but were not deployed. [redacted] indicates that these divisions had reverted to Category II status by late January 1969.

In the event of mobilization and reinforcement, the Soviet Central Group of Forces in Czechoslovakia would probably constitute the advance element of the Carpathian front. The CGF, with its two tank and three motorized rifle divisions, approximates a field army, particularly if it were reinforced with combat support elements. The total personnel strength of the CGF, including its two air regiments, is estimated to be from 55,000 to 60,000 men.

When fully mobilized and deployed, the Carpathian front--incorporating the CGF forces--would have about 230,000 men and 3,400 tanks. It would be supported by about 240 ground attack and reconnaissance aircraft, 70 nuclear-capable missile and rocket launchers, 1,300 light and medium field artillery pieces, and 190 multiple-tube rocket launchers.

Polish Front

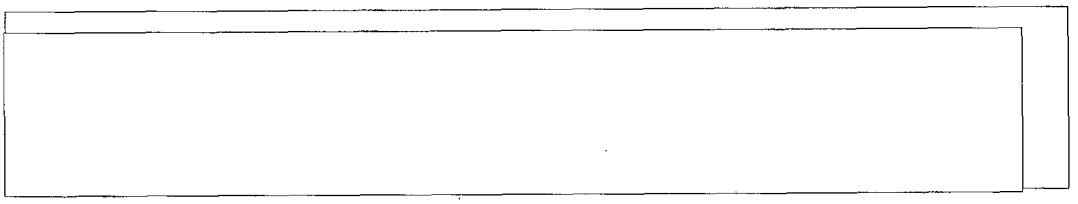
Poland is responsible for organizing and deploying a front consisting of three Polish field armies and a tactical air army. Two of the field armies, one organized from the Pomeranian Military District and one from the Silesian MD, could be ready for combat within a few hours after being alerted. The nine divisions in these two armies--five tank and four mechanized (equivalent to motorized rifle divisions)--are probably manned at between 80 and 100 percent personnel strength and have all their vehicles and equipment. The support units of these two armies are also probably at sufficient strength for immediate deployment.

The rest of the Polish front would be formed by an army from the Warsaw MD. Its four mechanized divisions and its support units are believed to be at low strength in peacetime and are short much of their general purpose transport equipment. The preparation of this army for combat, including the mobilization and integration of reservists and civilian vehicles and the organization of army-level command and control and logistic organizations, would probably require seven to ten days.

In addition to the line divisions in armies, Poland has a small airborne division and a small amphibious assault landing division. Both are probably available for immediate deployment, although the airborne division would have to rely on Soviet aircraft for transport.

The front headquarters would be formed by cadres from the Ministry of National Defense, supplemented by reservists. The front support units, particularly those concerned with supply, maintenance, and transportation, would largely be created during mobilization. Part of these units would be formed using cadres drawn from peacetime organizations and functions, but many would be provisional units formed almost entirely from civilian institutions such as hospitals and transport organizations.

As is the case with Czechoslovakia, the rapid creation and deployment of the front's command, control, and support organization is the most critical and complex task involved in preparing the Polish armed forces for war. Although the divisions of two of the three armies could begin deployment and even enter combat largely on the basis of predetermined contingency plans, their subsequent direction and support would depend on the capability of the front to begin carrying out all its functions within a few days after mobilization began.



When fully mobilized, the Polish front would probably have about 215,000 men and 2,800 tanks. It would be supported by some 260 ground attack and reconnaissance aircraft, the bulk of which are aging MIG-15s and MIG-17s, by about 65 missile and rocket launchers, as many as 1,000 towed artillery pieces of light and medium calibers, and about 170 multiple-tube rocket launchers.

The main strength of the Polish front, as with the Soviet front in Germany, lies in its large number of tanks. The proportion of infantry is low.

The major weaknesses of the Polish front stem from its dependence on a complex and awkward mobilization procedure and from the necessity to deploy its forces westward into Germany before they could be committed in an offensive. Not only do the operations of the Polish forces depend on the mobilization and movement actions, but these actions are vulnerable to interruption if they are still under way when hostilities begin.

Soviet Forces in Poland

The Soviet Northern Group of Forces (NGF) in Poland consists of only two tank divisions, both of which are probably Category IA, but has combat support units approximating those of a typical Soviet field army and 180 ground attack and reconnaissance aircraft.

There is no evidence to indicate the intended wartime role of NGF, but its units could be used to reinforce either the GSFG or the Polish front or they could form a part of a theater reserve. One tank division and about 75 aircraft of the 37th Tactical Air Army were temporarily deployed during the Czechoslovak intervention.

Belorussian Front

The forces of the Belorussian Military District are similar in size and organization to those of the Carpathian MD but are at a somewhat lower stage of combat readiness and have less support. They are probably intended to form a front for use in the Central Region.

There are three field armies, one combined arms and two tank, and a tactical air army in the district. The 28th Combined Arms Army contributed its two Category IB divisions to the Central Group of Forces in Czechoslovakia and now has only two Category II divisions, one tank and one motorized rifle. The 5th Guards Tank Army and the 7th Tank Army have a total of seven tank divisions. One of these, the 3rd Guards Tank Division in the 7th Tank Army, is probably Category IB. The other six are Category II.

The three divisions of the 5th Guards Tank Army were mobilized during the Czechoslovak crisis but were not deployed. They have since reverted to their normal status.

The Belorussian MD has an additional Category IB motorized rifle division not assigned to any army which would be available for early deployment. An airborne division also located in the military district is subordinate to the Airborne Forces Headquarters in Moscow, which would control its employment.

Analysis [redacted] indicates that there are fewer combat support units in the Belorussian MD than in any of the other potential Soviet fronts for Central Europe. Neither of the tank armies appears to have an artillery brigade and the artillery unit for the combined arms army apparently is only of battalion size rather than being a brigade. Only two Scud tactical missile brigades have been identified, but there is evidence that a third may exist. Each army does have an SA-2 surface-to-air missile regiment and an engineer ponton unit. The engineer units appear to be at low personnel and equipment strength.

Identified front level support consists of an artillery division at reduced or cadre strength and a tank transporter unit which would be capable of lifting the tanks of one complete tank division.

The Belorussian MD could probably produce a front which could complete mobilization and the deployment of its combat elements into western Poland or East Germany within about two weeks. It would probably require about three weeks to assemble the complete front, including the rear services organization, in the forward area. The front would consist of about 165,000 men with 2,800 tanks, supported by 180 ground attack and reconnaissance aircraft, about 45 nuclear-capable missile or rocket launchers, 600 artillery pieces, and 120 multiple-tube rocket launchers.

Baltic Military District

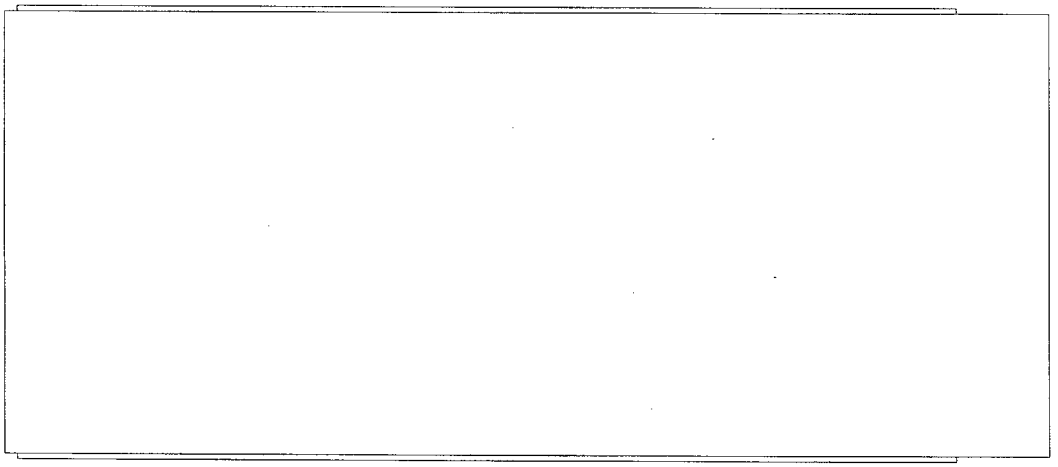
The Baltic MD contains a combined arms army--the 11th Guards--available for the Central Region and an airborne division. There are also 210 ground attack and reconnaissance aircraft.

Between 17 July and 10 August 1968 the 11th Guards Army, which had three Category IB and two Category II divisions, was mobilized and began a movement into north-central Poland. By the end of August it was in the area of the East German - Czechoslovak border, where it apparently remained until late October. It then returned to its normal station and demobilized, leaving behind in Czechoslovakia the motorized rifle division originally located at Chernyakhovsk. The airborne division also participated in the intervention, and was subsequently returned to its home station.

Strategic Reserve

Simultaneously with the mobilization and deployment of the fronts, the Soviets would probably begin developing a strategic reserve under the direct control of the high command. This reserve would be intended to reinforce and replenish the

forces in the Central Region or elsewhere. Initially, it would probably include those forces in the western USSR which are organized into field armies in peacetime but are not committed to the fronts.



This suggests that the primary area of interest of the forces of the Kiev MD up to the mid-Sixties was opposite the NATO Central Region, but that they also had contingency plans involving the NATO Southern Region and perhaps defense of the Black Sea maritime area. there has been no evidence to suggest any significant change in the district's forces or missions. During the Czechoslovak crisis a mobilized tank division which probably came from the Kiev MD was moved forward temporarily to Bolgrad in the Odessa MD to replace the 48th division, which had been sent to Czechoslovakia. The 48th has remained in Czechoslovakia, but the tank division which replaced it has apparently returned to its home station. This temporary deployment suggests a continued Kiev MD interest in the area opposite the NATO Southern Region.

The two armies in the Kiev MD, each of which currently has four Category II divisions, would probably constitute the core of the strategic reserve. Two additional Category II divisions

which are not assigned to either army would probably also be included. Both armies have combat support units including Scud brigades, artillery brigades, engineer regiments, and probably surface-to-air missile units.

Both armies and the additional divisions could probably be available for deployment from their present locations within about two weeks after mobilization began.

The Soviet Southern Group of Forces (SGF) in Hungary approximates a field army with its four Category IA divisions and army level support units. There are also 130 ground attack and reconnaissance aircraft. As with the Northern Group of Forces in Poland, there is no evidence to indicate the intended wartime role of the SGF. It is so situated that it could be used against either the Central or Southern region of NATO and it may therefore be part of the strategic reserve. Three divisions and some of the aircraft in the SGF were used in the Czechoslovak intervention.

The Warsaw Pact Mission

Soviet Views of War in Europe

Classified Soviet military writing in the early Sixties--when the forces now deployed were being planned--had as its central theme the conviction that a war with NATO in Europe would either begin with or quickly escalate to the use of nuclear weapons. Most of the military writers opposed Khrushchev's earlier doctrine that the advent of nuclear weapons obviated the need to maintain massive ground forces. Instead, these strategists stated that nuclear warfare would require large ground forces, not only to absorb the high casualties expected but also to exploit Soviet nuclear strikes by eliminating any substantial NATO forces surviving and to consolidate the conquest of Europe.

Planning to meet this requirement for substantial ground forces was complicated by the great distance between Germany, probably the area of initial conflict, and the western USSR, where the bulk of the units intended for the European theater of operations were located. The size and disposition of current Warsaw Pact ground forces represent a compromise between the concepts the Soviet military planners developed of the requirement for large combat ready forces near the NATO frontiers and the economic constraints and political considerations which made such large forces impractical.

Economic constraints, stated simply, are the monetary costs incurred in supporting large and complex forces outside the USSR. The political considerations include the political or "public relations" cost of maintaining sizable Soviet forces on "fraternal" soil where they, by their very presence, may ignite periodic outbursts of public antagonism and are vulnerable to charges of Soviet "occupation." This has been demonstrated over the years in Hungary and East Germany and recently in Czechoslovakia.

The Soviets have sought a solution to their dilemma through the development of a capability for

rapid mobilization and reinforcement. Their concept is to maintain a large enough force in the forward area of the central region--East Germany, Poland, and Czechoslovakia--to defend against an unexpected attack, providing the time necessary for a partially manned and equipped force in the western USSR to be quickly mobilized and brought forward to decide the issue in the Soviets' favor.

In keeping with this concept, the Soviets have provided their forward forces with most of the combat equipment they need and have assigned most of the manpower allotted to the ground forces to combat units, relying on mobilization to supply the support personnel and transport necessary for prolonged combat.

The successful completion of the mobilization and reinforcement phases would probably depend on their being carried out without serious interruption by nuclear attack. Doubts that the reinforcements could reach the conflict area after nuclear hostilities had begun were widely discussed in the debate over force structures conducted in the classified military journals in the early Sixties, and helped incline Soviet military thought toward the idea that at least a "short period of tension" would precede the outbreak of hostilities. Soviet writings expressed a hope that this period of tension--which even achieved a certain aura of dogma by being offically designated as the "special period"--would allow time for the mobilization and movement westward of at least some of the reinforcements. Most of the writers assumed that a "period of tension" would last long enough to permit the Warsaw Pact to accomplish some of the buildup uninterrupted.

A number of writers, notably Colonel General Pavlovskiy, cautioned that the period of tension might be very short--"counted perhaps only in hours." The leading radical of the debates and spokesman of the Khrushchev view, Colonel General Gastilovich, argued that the strategic nuclear exchange would certainly prevent any significant mobilization and reinforcement but that even so the Soviet forces normally stationed in Central Europe,

with a few East European reinforcements, would be enough to finish the war.

The "short period of tension" is still a vital ingredient in Soviet thinking. Continued reference to this concept in military writings implies that the Soviets--and their allies--seriously doubt whether they could successfully complete mobilization and reinforcement if hostilities involving the use of nuclear weapons should begin without warning.

Khrushchev's axiom that any hostilities between the US and the USSR would inevitably escalate to general nuclear war is no longer the sole basis of Soviet doctrine. Current Soviet doctrine recognizes the possibility of nonnuclear combat involving the US and the USSR.

the Soviets have moved away from the rigidity of the Khrushchev doctrine, but there is no reason to believe that they expect they would achieve a decisive military success, such as the destruction of NATO ground forces and the seizure of West Germany, without nuclear weapons having been introduced by NATO.

The command structure, deployment, and readiness status of Soviet and East European theater forces and Soviet and East European military thought as expressed in writings and statements are indicative of an essentially defensive military posture opposite NATO's Central Region. At the same time, Soviet doctrine emphasizes the need--once hostilities have begun--to seize the strategic initiative at the earliest possible moment, and Soviet combat units are designed for offensive operations.

In order to assemble enough forces to initiate an attack on NATO with a reasonable hope of success, the Soviets and their allies would have to resort to massive mobilization of men and vehicles and large-scale redeployment of Soviet and Polish forces over long distances. consistently treat the possibility of such a mobilization and reinforcement as a reaction either to an increase in international tensions caused by some US

action, or to an outright military attack by NATO, rather than as preparations for an attack. Classified Soviet writings indicate that the Warsaw Pact countries would not count on being able to mass their forces in secrecy. They would expect to set off mobilization on the NATO side, and possibly a pre-emptive attack.

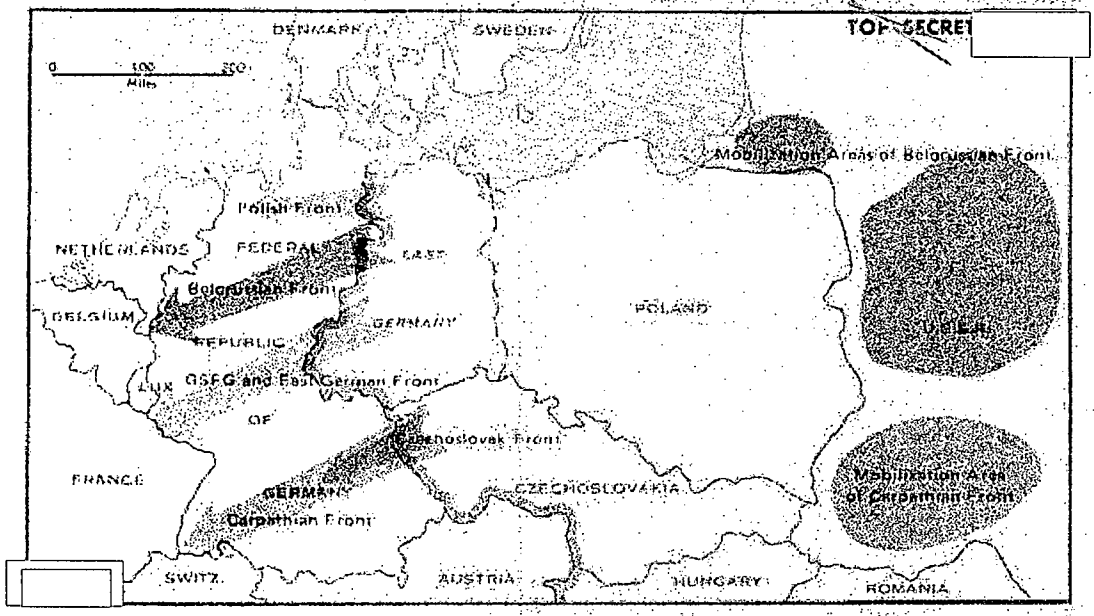
Warsaw Pact Contingency Planning

Significant new bodies of evidence are now available which give a clear outline of the main features of Soviet planning for the contingency of an attack by NATO, and the manner in which the Soviets intend to employ the main Warsaw Pact forces in response. Soviet contingency planning clearly demonstrates that, in Soviet eyes, the overriding mission of the Warsaw Pact general purpose forces is to maintain Soviet security by defending Central Europe.

In general terms, the plan, which was probably adopted in the early Sixties [redacted] envisions that a NATO attack would be contained by Soviet, East German, Polish, and Czechoslovak troops already in place in Eastern Europe. These forces would then initiate a counter-attack which would develop into a broad, rapid advance through West Germany and on to the English Channel with a force of five fronts in two echelons.*

* *"Echelon" has a special meaning in the Soviet view of military operations. Soviet doctrine envisages large groupings of troops deployed behind the front line or first echelon units and not engaged in combat. This second echelon would be committed only after the first echelon forces had been substantially engaged by the enemy. To some extent the second echelon can be viewed as a reserve, but it is primarily a maneuvering force, often with predetermined objectives. The Soviet concept of echelons is applicable at all levels, including army, front, and even theater.*

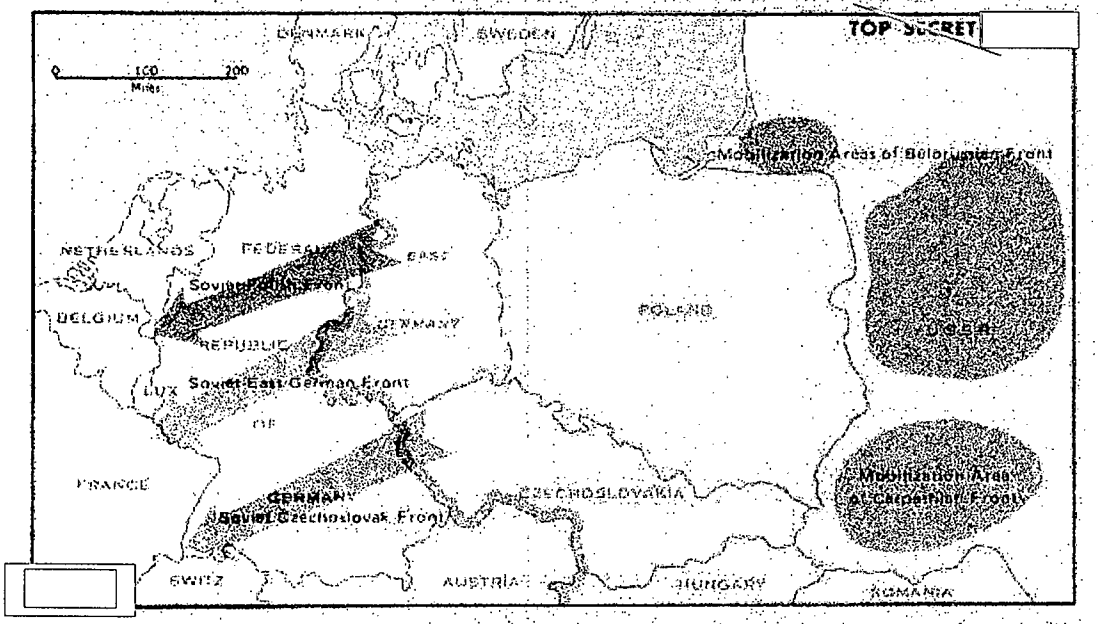
WARSAW PACT CONTINGENCY PLAN FOR COUNTEROFFENSIVE AGAINST NATO CENTRAL REGION



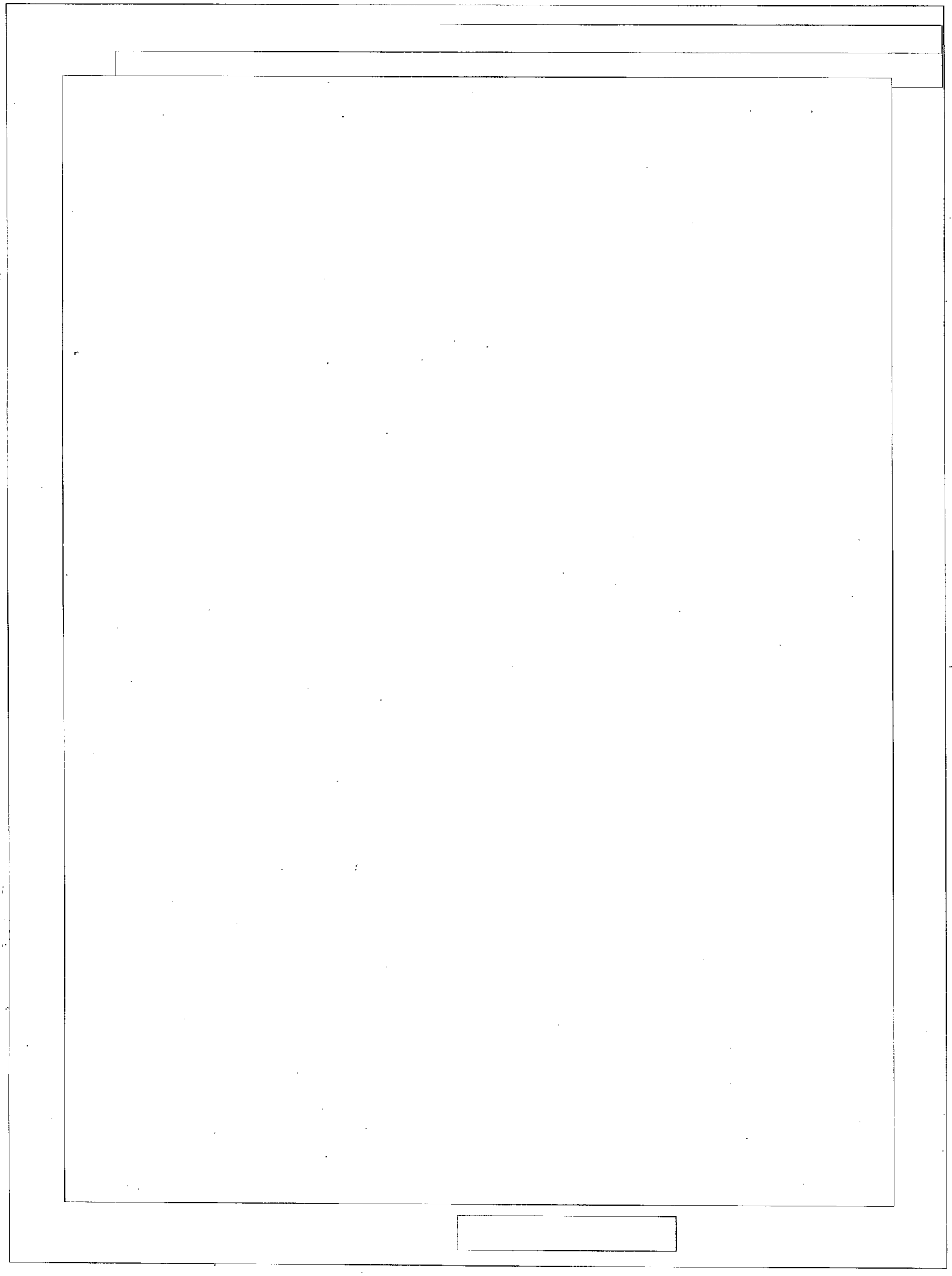
Analysis of all available information indicates that the Warsaw Pact contingency plan for response to a NATO-initiated attack envisions that Warsaw Pact forces would contain NATO's attack and seize the initiative by counter-attacking at the earliest opportunity. These responsibilities would fall on the Soviet, East German, Polish, and Czechoslovak forces already in place in Eastern Europe, which would be organized as three fronts.

The Carpathian and Belorussian fronts would move forward from the western USSR to join these forces as soon as possible. These two fronts, along with the Group of Soviet Forces in Germany, would then assume the primary role in a major Warsaw Pact offensive.

POSSIBLE VARIATION FOR DELIBERATE WARSAW PACT AGGRESSION



If the Warsaw Pact forces were to undertake deliberate aggression against NATO, planning for offensive action would probably provide for greater initial reliance on Soviet forces, with mobilization and forward deployment of the Carpathian and Belorussian fronts before an attack. Mostly Soviet fronts would make the major thrusts westward, supported by East European forces.



The primary offensive missions are evidently the responsibility of a "first echelon" comprised of the Warsaw Pact forces presently deployed in East Germany, Czechoslovakia, and Poland. A second echelon comprised of two fronts from the western USSR is apparently intended to move up as soon as possible and--along with Soviet forces from East Germany--consolidate the Soviet hold on Western Europe and secure it from Western forces not on the continent. (The table on page 32 summarizes the men and weapons in this force.)

Under this plan, a Polish front is to make a thrust along the seaward flank; a force composed of both the Group of Soviet Forces in Germany (GSFG) and East German forces is assigned the front role in the central sector; and forces from Czechoslovakia would constitute a front on the southern flank. a Soviet front from the Carpathian region of the Ukraine will constitute the second echelon in the Czech sector. The five-division Central Group of Forces now probably forms the vanguard of the Carpathian front inside Czechoslovakia. The Soviet Belorussian Military District appears to be designed to perform as a second echelon front behind the GSFG or Polish front.

The Soviet and East German front--comprising as many as five combined arms and two tank armies, a massive air army, and other combat and service support units--has the responsibility of destroying the main body of NATO forces in the center.

The front from Czechoslovakia, which may now include the Soviet Central Group of Forces, has the mission of advancing as far as the west bank of the Rhine in the area roughly between Mannheim and the Swiss border. the Czechoslovak front designed for the mission was composed of three combined arms armies, one tactical air army, and assorted combat and service support units.

The Polish front, of the same general composition but larger in size, probably has an offensive zone of responsibility about one hundred miles wide extending as far west as the English Channel at Ostende.

The two fronts from the western USSR are apparently intended for commitment after the NATO forces have been significantly weakened by combat with the first echelon fronts. Evidence suggests that with these fresh forces rests the responsibility for the final offensive to the channel coast. The most critical aspect of this plan to the Soviets is the need to secure the European theater in an extremely short period of time--perhaps less than three weeks after the initiation of hostilities.

The Warsaw Pact contingency plan for the NATO Central Region clearly posits a rapid achievement of numerical superiority in maneuver units, tanks, and artillery. With the exception of tanks, such superiority is not maintained in peacetime. The success of the plan would depend in large part on rapid mobilization for most of the rear services support force and even for much of the combat force.

Highly reliable evidence outlines the major features of the plan for mobilizing Warsaw Pact forces against NATO in the Central Region. The speed of mobilization of a front apparently is related to the expected timetable for its commitment to battle. As much as one-third of the Czech and Polish fronts is to be mobilized within three days. Two-thirds of the Carpathian front and all of the Belorussian front are expected to be mobilizing at about the same time. Apparently only the Soviet forces in Germany are maintained at combat strength.

The Warsaw Pact countries, including the USSR, evidently intend to begin deploying the ready portions of their fronts from the interiors of their countries before the whole force is completely mobilized. The leading elements of the two Soviet fronts from the western USSR are expected to arrive in central Poland and Czechoslovakia within three to

six days after mobilization begins. The Soviets anticipate that the main elements of these two fronts would participate in combat operations within two weeks after mobilization is ordered.

The current plan differs from the previous one in two important respects. First, it shifts part of the burden of maintaining large combat ready forces from the USSR to Poland and Czechoslovakia. Secondly, and perhaps of greater importance, the establishment of a combat ready Warsaw Pact force in the forward area partially resolves the dilemma which has faced the Soviets since the rearming of the West Germans and the formation of NATO: how to provide a defense of Central Europe with the Soviet forces there until reinforcements could be brought up some 600 miles from the western USSR. Reinforcement is still considered necessary to provide a force large enough to ensure seizing the initiative from NATO and mounting a counteroffensive.

Possible Variations of the Contingency Plan

If the Soviets were to deliberately initiate a full-scale attack on NATO, they would probably make fundamental changes in their contingency plan. In that scheme, the East Europeans provide 60 percent of the first echelon forces. If the Soviets were to undertake a deliberate aggression, they would probably not be willing to rely on Poland and East Germany to furnish a large proportion of the striking force. They would certainly not depend on the Czechoslovak Army, which was seriously demoralized by the Soviet intervention of August 1968 and by the subsequent purges and manpower reductions. Rather, the Soviets would probably seek to build up a relatively

large Soviet first echelon force to aim for the main objectives and would probably relegate the Czechoslovak and Polish forces to less important roles.

The Soviets would probably attempt to complete the mobilization and forward deployment of the Belorussian and Carpathian fronts before initiating an attack. The main attacks westward could then be made by mainly Soviet fronts, possibly with Czechoslovak and East German armies integrated into them. (The lower map on page 51 shows one possible plan for a Soviet attack on NATO.)

The Soviets would have to take into account that the massive mobilization and large troop movements which such a scheme would necessitate prior to hostilities would greatly increase the likelihood of early detection by NATO of their reinforcement. They would probably assume that this would increase the risk of a pre-emptive NATO attack in which--if nuclear weapons were employed--forward deployment would be severely hampered.

Soviet Capabilities for Nonnuclear War

The wealth of evidence available, mainly classified military journals and the 1959 and 1962 issues of the Soviet Field Service Regulations, provides a clear picture of Soviet military thinking and doctrine up to the mid-Sixties on the probable nature of a war involving the Warsaw Pact and NATO in Europe. The Soviet theater forces which evolved from this doctrine were structured to maximize their capabilities for general nuclear war, and they appeared to have serious shortcomings for fighting a conventional war, especially a sustained one.

More recent evidence indicates that the Soviets have modified their views on the likelihood of nonnuclear war in Europe or at least are seriously considering some alternatives to the theory that escalation to the general use of nuclear weapons will be automatic. Indications of changes in thinking, and evidence that some changes are under way in the forces themselves to increase their nonnuclear fire support, have led to a reassessment of those aspects of Soviet capabilities for nonnuclear war on which data are available.

Development of Soviet Doctrine and Organization for Theater Warfare

From the late Fifties until the mid-Sixties the Soviets visualized a war in Europe as nuclear at the outset. In accord with this concept, they undertook to shape their theater forces to advance swiftly across Western Europe in the aftermath of a nuclear holocaust.

In Soviet thinking, the concept of a quick war obviated the need for extensive service support, and the nuclear nature of the war and the fluidity of the battle required less conventional fire support from artillery and tactical aircraft. Instead of massed artillery and infantry, nuclear strikes were to create gaps in NATO's defenses and destroy NATO's reserves. Large tank forces would then pass through these gaps and advance rapidly through Western Europe, bypassing or encircling any remaining NATO forces.

Support requirements--after the initial breakthrough --would be limited essentially to those which would keep the tanks rolling--POL supply, engineer support, and limited ammunition supply. The artillery, being towed and lacking armor, was poorly suited for this phase of the campaign but it was mainly intended to help reduce initial enemy resistance and supplement the nuclear fires during the breakthrough phase. Once the tank units had overcome NATO's forward defenses, they would presumably rely on their own numerous direct fire weapons and on air and missile support.

To fit their new concepts, the Soviets accelerated the mechanization and streamlining process under way since World War II, discarding both the infantry divisions, which had made up the bulk of their theater forces, and much of the massive artillery and tactical air support. In their stead, they designed a highly mobile force comprised essentially of tanks and supported by rockets and missiles with nuclear warheads and tactical aircraft with good mobility and dispersal characteristics but low payload capacities. By the early Sixties the reorganization was virtually complete and the Soviets and their Warsaw Pact allies could assemble over 20,000 tanks opposite NATO's Central Region.

Some compromises had been necessary, however. The force had relatively little infantry--although all the infantry that was retained was to be mounted in armored personnel carriers (APCs)--and remarkably little combat and logistical support. Current Soviet divisions have roughly the same number of tanks as do US divisions but half as many men, and nondivisional support was similarly pared down. The Soviet concept required the motorized infantry to keep pace with the tanks, but most of the APCs available were deficient in mobility and armor protection, and even these were in short supply. The Soviets evidently had concluded that tanks were the essential ingredient and that a relatively low infantry strength was acceptable. Except for units already deployed on the frontiers with NATO, the newly reorganized ground forces were obliged to rely on mobilization from the civilian economy for most

of their trucks and much of the manpower needed to make them ready for combat. Artillery forces were hampered by lack of mobility, firepower, and armor for protection in a tactical situation.

Recent Changes in Doctrine

By the mid-Sixties this rigid concept of a short, nuclear war was being questioned by a growing number of Soviet military writers. To a degree, their restiveness may have simply reflected the frustration of practical military planners faced with the intractable problems of preparing to conduct rational military operations in a nuclear inferno.

But it also reflected discontent with the lack of alternatives inherent in the prevailing doctrine. In a March 1968 *Red Star* article, no less an authority than Col. Gen. M. Povaliy, planning chief of the Soviet General Staff, gave an unprecedented endorsement to the rationale underlying the US strategy of flexible response. Under the concept of flexible response, wrote Povaliy, a state need not run the risk of nuclear war in every situation involving its allies and can pursue its own military and political objectives with the least threat to its own security.

Analysis of the military press indicates that this "flexible response" concept has evolved into an acknowledged part of Soviet military doctrine during the past two years. The view that a future war may be conducted either with or without the use of nuclear weapons is no longer contested in the military press. On the contrary, strategic force advocates who in the past have warned that any conflict with the West would inevitably and quickly escalate into a general nuclear war are now arguing that the new conventional war options exist because of the strategic nuclear relationship between the USSR and the US.

Moving beyond Povaliy's acceptance of flexible response were two more recent articles, both published in the May 1969 issue of the classified Soviet doctrinal journal *Military Thought*. These

articles were by General of the Army S. Ivanov, chief of the General Staff Academy (and Povaliy's predecessor on the General Staff), and Maj. Gen. Zemskov, chief editor of *Military Thought*. According to these experts, a "new" world war would only "probably"--not inevitably--be nuclear. They said that recognizing the "terrible consequences" of nuclear war, an aggressor would not lightly introduce nuclear weapons without having used "all" other means to achieve his goals. They also recognized the possibility of circumstances in which both sides would use nuclear weapons but only for limited objectives--in short, limited nuclear actions in an otherwise conventional war.

The clearest indication that Soviet thinking has gone beyond the talking stage and that some modification in practice of the strict nuclear war doctrine has already taken place comes from Warsaw Pact exercises. In recent years a number of these have had scenarios which assumed that the war began with a NATO conventional attack. Warsaw Pact conventional forces would defeat this attack, whereupon NATO would resort to the use of tactical nuclear weapons. Then the Warsaw Pact forces, reinforced from the USSR and using nuclear weapons, would launch a counteroffensive that would overrun Europe. Earlier exercises simply depicted an initial nuclear exchange after which surviving Soviet forces achieved victory.

Recent Changes in Forces

More tangible evidence of Soviet acceptance of the possibility of nonnuclear war are changes in the structure of Soviet forces during the past year. Analysis shows that field artillery in line divisions in the Group of Soviet Forces in Germany (GSFG) has been increased by 50 percent in motorized rifle divisions and 65 percent in tank divisions. These increases have added 480 guns to GSFG artillery strength, which now totals about 1,600 guns. All but about 450 of these are light artillery, and all are towed.

In addition, multiple rocket launchers in each Soviet division in East Germany have been increased from 12 to 18, with many of them the new 40-tube 122mm model. These weapons can deliver large volumes of area fire rapidly, but they are too inaccurate for use as close support weapons and are vulnerable to enemy action once they disclose their location by firing.

The artillery reorganization thus far appears to be largely confined to Soviet divisions in Eastern Europe and some of the new divisions on the Chinese border. A few artillery units in the western USSR may have been up-gunned, but the evidence is still inconclusive. As new production makes additional artillery available, the Soviets will probably reorganize all their division artillery along the new lines.

Previous assessments of Soviet conventional war capabilities have also identified as weaknesses the relative lightness in infantry, the short ranges and small payloads of the tactical aircraft, and the small provision of logistic and maintenance support at the division and army level. Most of these result from stressing theater forces organized for quick, nuclear war. A change in Soviet doctrine to accept the possibility of sustained conventional combat would probably lead eventually to substantial changes in these areas paralleling the increases now under way in artillery and rocket launchers.

Aside from the artillery increases, however, there is no evidence that the Soviets are now modifying their ground forces to improve their capabilities for sustained nonnuclear war. The tactical air forces have not increased their conventional war capability against NATO. The Soviets have virtually ceased producing Fitter fighter-bombers and Brewer light bombers for their tactical air forces. New aircraft under development which have improved capabilities for conventional ground support, particularly the Flogger, will not become available in significant numbers for several years. The artillery increases themselves, although substantial when compared with the previous holdings, still leave deficiencies in

Soviet abilities to provide the armored forces with close and continuous nonnuclear fire support.

Current Soviet Nonnuclear Capabilities

The central and inescapable fact of the capability of the Soviet theater forces to wage nonnuclear war is their superiority in numbers of tanks. Even in a nuclear war, Soviet doctrine would prescribe--and the current order of battle would readily permit--the concentration of up to 1,500 tanks in a breakthrough zone approximately 40 kilometers wide. In a nonnuclear situation, the Soviets might concentrate that number of tanks on even less frontage.

The emphasis on armor has resulted in a remarkably low ratio of infantry to tanks in the Soviet ground forces. Of some 60 Soviet line divisions probably available for early use against the NATO Central Region, about 35 are tank divisions and 25 are motorized rifle divisions. These divisions contain a total of 130 tank regiments and 110 motorized rifle regiments, and each motorized rifle regiment has an organic tank battalion of 30 medium tanks.

In pure numbers, the Soviets and their Polish, East German, and Czechoslovak allies could assemble 20,000 medium and heavy tanks opposite NATO's Central Region and back these up with perhaps 3,000 more in strategic reserves. This would give them a superiority in battle tanks over NATO on the order of 3.5 to 1. By Soviet standards the tank crews are well trained, although they are probably somewhat below the standards of US crews because of their relative lack of practice with main gun ammunition on realistic target ranges.

The Soviet infantry appears to have become the stepchild of the ground forces. Despite the lip service paid in Soviet literature to "combined arms" doctrine, the Soviets seem to have given priority to tanks and tactical nuclear weapons over everything else in the ground forces. Infantry has lost out to

tanks in terms of organization and modernization, and must make do with a higher proportion of obsolescent equipment and, apparently, a lower level of peacetime manning.

After reinforcement, the Warsaw Pact forces would have about 145,000 riflemen--some 10 percent of the total force--giving them an edge of about 1.5 to 1 over NATO in numbers, although not in quality. This ratio would be adequate for defense but would not provide a clear advantage if the forces were used offensively against NATO's superior supporting firepower.

The characteristics of their field artillery suggest that the Soviets still view it as mainly effective in relatively static roles such as preparatory fires for an initial attack or in defense. In a nonnuclear situation, artillery would play a major role either in facilitating a breakthrough or blunting an attack--these may have been primary considerations in the Soviet decision to increase it. In other offensive situations, such as pursuit or exploitation, the Soviets would probably rely mainly on the direct fire of tanks, supplemented by close tactical air support, since the lack of armored, self-propelled guns would seriously limit the ability of the artillery to maintain close support of armored forces in fluid tactical situations.

Soviet field artillery units use relatively primitive gunnery techniques and are probably unable to maneuver and mass fire with the speed, accuracy, and flexibility of NATO artillery units. Analysis indicates that the bulk of their training involves the delivery of preplanned fires during coordinated attacks and that little attention is given to practicing more dynamic roles involving close support of units on the move.

Soviet artillery is substantially lighter in caliber than most of NATO's artillery, although its range capabilities are roughly the same. In absolute numbers the Warsaw Pact would have about 5,800

guns after reinforcement--roughly twice as many as NATO. They would also have nearly 1,000 multiple rocket launchers. These latter could deliver a large volume of relatively inaccurate area fire and would be especially valuable in a defense against unprotected attacking troops. They would be significantly less effective against the types of protected targets presented by an organized defense.

The evidence available indicates that planned Soviet supply rates for artillery are only a little more than one-third of NATO rates. Considering this evidence, the heavier caliber of NATO artillery, and NATO's superior gunnery, it appears that NATO artillery is likely to deliver a greater overall volume of accurate artillery fire than Warsaw Pact artillery.

Soviet doctrine calls for extensive use of second echelon and reserve tanks in the indirect fire role in support of breakthrough operations. The guns, ammunition, and fire control of tanks are not designed for indirect fire, however, and considerable US experience indicates that attempts to use tanks as artillery generally yield indifferent results. Given a relatively static situation such as preparation for attack and with adequate time for preparing the tanks and stockpiling high explosive ammunition, however, the large number of Soviet tanks likely to be in reserve or second echelon might augment field artillery fires to a significant extent.

Flexible employment of the forces would be hampered by Soviet reliance on the regiment as the basic maneuver unit. Soviet doctrine and Soviet practice in exercises indicate that each regiment--whether motorized rifle or tank--would be assigned a separate combat mission or objective. The Soviets do not practice breaking up regiments in order to form combat teams tailored for specific missions and, as a result, Soviet tank regiments would customarily go into battle without infantry support--a practice which was

probably considered acceptable or even desirable for nuclear war, but which is not as applicable to nonnuclear war.

The Soviets would usually prefer to use motorized rifle divisions and regiments for those missions involving attacks against heavily defended areas or through terrain not suitable for tanks. They would be limited in this option, however, by their current organizational patterns. In East Germany, for example, the two Soviet tank armies which are intended for primary offensive roles along the main axis have a total of 26 tank regiments and only 13 motorized rifle regiments. The principal reinforcement for GSFG--the forces of the Belorussian Military District --would add 26 more tank regiments and 13 motorized rifle regiments, maintaining the high proportion of tank units.

Soviet combat effectiveness would probably also be hampered by the fact that tactical doctrine is rigid. The field service regulations are replete with such expressions as "rapid maneuver" and "independent and enterprising action," but these same regulations prescribe the details of operational planning for each of the various types of military engagements with an excruciating minuteness far beyond the general principles usually set forth in US manuals. The Soviets have made a fetish of the meeting engagement--a surprise encounter between two forces in movement, neither of which is fully deployed and prepared for combat, which almost invariably leads to a confused melee with the advantage usually going to the commander with the greatest initiative--and lay out a sort of set-piece formula for its conduct.

Such shortcomings have been commented on bitterly by senior UAR officers, who concluded that Soviet organization and tactical doctrine were unsuitable for the conditions the Egyptians faced in the 1967 war.

The service support organization at division and army level has probably remained essentially unchanged since the early Sixties when it was reduced substantially in an effort to improve mobility. This action

was reflected in the classified debates with the advocates of the reduction--led by then Minister of Defense Malinovskiy--who claimed that the cuts had enhanced the ground forces' capability to maintain high rates of advance in nuclear war and who proposed even further reductions. Others such as Colonel General Malykhin, deputy chief of the Rear Services, complained that the cuts had already dangerously reduced mobile supplies and argued for keeping the stock levels at least at the then current levels.

There is no evidence to indicate what service support organization the Soviets would consider adequate for sustained nonnuclear combat or whether any increases in logistical capability are planned. Current Soviet logistic capabilities, particularly for ammunition supply, are consistent with earlier nuclear war doctrine. If rates of ammunition consumption in nonnuclear war were to exceed greatly supply rates planned for a nuclear war, as seems likely, the Soviets would have difficulty in sustaining an offensive longer than two or three days. If authorities such as Malykhin considered Soviet logistical capabilities dangerously deficient for nuclear war, they probably view the prospects of supporting a sustained nonnuclear war with the same organization with some dismay.

Over the years, the Soviet Army has been considered well trained. New evidence, and the revised assessment of the peacetime manning levels of most of the army, suggest that a re-examination of that view is necessary.

[redacted] the training [redacted] in a first line Carpathian Military District division was dull, unimaginative, and generally slack. Training was seriously curtailed by frequent interruptions for troop labor details.

If, as now appears to be the case, most Soviet units have been at half strength or less for at least the past ten years, the pool of trained reservists with recent military service is substantially

smaller than has been supposed. This judgment is supported by the experience of the 31st Tank Division during the mobilization in May 1968 as part of the forces used to threaten Czechoslovakia. the enlisted reservists who had been earmarked ranged in age up to 42 years. None of them had received refresher training since discharge from military service as long as 21 years previously, and, in the opinion of the regimental officers, they made poor soldiers. The reserve officers for the regiment had been called up annually for two weeks of classroom lectures but had no other refresher training. The division had never had a mobilization exercise in the six years

The evidence available indicates that, until the Czechoslovak crisis, mobilization exercises by divisions were rare and most enlisted reservists apparently have had little or no training since discharge. US experience suggests that such soldiers would require intensive refresher training to be qualified for any except the most unskilled assignments. Soviet divisions, with their low men-to-equipment ratio, require a high proportion of skilled personnel.

the typical training regime is long and rigorous but that it contains no more solid military training time than US training. Time is lost to housekeeping and guard details and to the performance of troop labor, both on military and civilian construction jobs and in support of agriculture.

In summary, the Soviets apparently chose to build what can best be described as an army of tanks. They evidently concluded that tank forces--in large numbers and with nuclear fire support--could successfully perform virtually all the normal ground forces offensive or defensive tactical roles. The Soviets appear to believe that such tank-heavy forces can also meet their requirements for nonnuclear war.

The Soviets and their Warsaw Pact allies could quickly assemble about 20,000 tanks against the NATO Central Region. The Soviets' large superiority in numbers of tanks would enable them to absorb large losses in successive assaults in a number of rather narrow attack zones, wearing down the opposing defenses while still retaining relative superiority in numbers. Neutralization of the Soviet tank advantage would leave the Soviets with a relatively modest capability and no clear overall advantage. Their infantry force, although about 50 percent larger than NATO's, would be less well trained and equipped and would have inferior conventional fire support.

Finally, their logistical capability may be so limited, especially at the division and army level, that the Soviets could not maintain the offensive momentum that their huge tank force was designed to produce. With the loss of this momentum their forces would become increasingly vulnerable to NATO's superior firepower in tactical aviation and artillery.

The Soviet View

The Soviets may have a higher opinion of their conventional war capability than Western intelligence. Not surprisingly, Soviet open statements on the ground forces have consistently implied a superiority over NATO in every respect. Although Soviet classified writings of the early Sixties were replete with criticisms of various aspects of ground force doctrine, organization, and equipment, there was no suggestion that any of the authors doubted the ability of the Soviet Army to conduct operations without nuclear support. All of those writers, however, proceeded from the premise that war with NATO would involve some mutual use of nuclear weapons. Even more recent writings which argue for flexibility in doctrine do not assess Soviet capability to conduct sustained nonnuclear operations, and Soviet planners may assume that in a nonnuclear war they would have time to remedy whatever deficiencies exist in the general purpose forces.

Although there is limited evidence that Soviet thinking has progressed to the point of accepting the possibility of a NATO - Warsaw Pact conflict fought to a decision solely with conventional weapons,

The Soviets apparently do not believe that NATO would accept total defeat without resort to all available weapons.

Nevertheless, the evidence now indicates that Soviet thinking has moved some way from the rigidities of the Khrushchev doctrine,

Soviet military planners apparently now accept the possibility that nonnuclear combat between US and Soviet forces might occur and persist for some time. With this acceptance, they may be considering the further possibility that such a conflict could end without nuclear weapons having been used at all.

Future Prospects for the Soviet Ground Forces

The Soviets' developing confrontation with China has caused a major shift in their policy toward general purpose forces. All the implications of this shift as it affects the future deployment and size of the forces are not yet clear, but some of the general considerations and constraints that will probably enter into the Soviets' calculations and decisions and influence the direction they take are already evident, including the two main factors which appear to affect Soviet planning for the ground forces: the Soviet estimate of the NATO threat and the USSR's Asian policy, including the prospects for war or peace with China.

The Soviets probably do not see the overall NATO threat as increasing. Rather, they probably anticipate its decrease over the long term. They recognize that the invasion of Czechoslovakia has delayed this process, but that they were successful in carrying out the intervention and subsequently leaving five additional Soviet divisions in the forward area without touching off any NATO reaction probably encouraged their long-term expectations.

There are abundant signs that as the Soviets' preoccupation with the China problem has grown, they have become increasingly desirous of stability and security in Europe. The Czechoslovak invasion was probably seen as necessary to preserve this stability. The conduct of the Soviets since Czechoslovakia is consistent with a moderate estimate of the NATO threat and a desire for stability. They almost certainly rate the Czechoslovak armed forces low in reliability and combat effectiveness, yet they have left them in sole occupation of the western frontier facing NATO. The Soviets have not taken any steps to increase the size or readiness of their reinforcement units in the western USSR to make up for the present deficiencies in Czechoslovak capabilities.

The contribution made by the East European armed forces and their intended contingency roles are major considerations for the Soviets in establishing the requirements for Soviet forces in the west. A key

aspect of the Warsaw Pact war plan is its heavy dependence on the reliability of East European nations, and on their willingness to march to the Soviet drum. The unresolved Czechoslovak crisis must have raised serious questions about the fundamental validity of the scheme. This does not necessarily mean that the Soviets will discard the plan. To do so would entail such profound changes in the military structure of the Warsaw Pact, and such a devastating admission of the failure of Soviet policy, that it is probably not feasible.

More likely, the Soviets will do what they can to restore the status quo ante. They will probably seek to make the Czechoslovak Army a compliant and reliable auxiliary of the Soviet defense establishment again by purging its leadership and by securing a reliable Czechoslovak government. They will continue to argue for more integration and closer Soviet control of Warsaw Pact forces--and will probably get little but lip service for their pains. They will probably keep some forces in Czechoslovakia at least until the rehabilitation of the Czechoslovak Army is well under way, but the present force is likely to be reduced in the next few years.

Analysis of all the available evidence suggests that the buildup now under way on the Chinese border, which began in 1965, was probably limited to a force goal of about 30 divisions. With this force, which could be completed by 1970 at the present rate of buildup, the Soviets will have the capability to deliver a sharp, decisive rebuff to any military initiative which the Chinese are likely to be able to undertake within the next several years or to launch a limited offensive at Soviet initiative.

The basis for the buildup was the transfer of cadre divisions to the border from other regions of the USSR. These cadre divisions were then built up

with additional personnel and equipment, with much of the additional equipment coming from new production. If the Soviets should decide to continue their border buildup the same approach would probably still be available to them for some time. There are additional cadre divisions available, and some 10 to 15 of these could be moved and built up to combat strength by 1973 without any change in the current rate of buildup.

This kind of continued buildup would simply enhance the capability the Soviets already have without giving them any significant new capability. They would still need massive reinforcement to conduct a full-scale war with China. Continuing the buildup would interfere with any plans the Soviets have for modernizing and improving the conventional war capabilities of their forces opposite NATO. These considerations make extension of the buildup beyond 1970 seem unlikely.

The volatile nature of the current phase of the Sino-Soviet confrontation is such, however, that the Soviets may envisage contingencies which would require the rapid deployment of much larger forces into the Far East. Such requirements could not be met without using forces which are currently oriented against NATO. This consideration might incline the Soviets toward maintaining the current force levels in the western USSR with a portion earmarked for Asian contingencies. A plan of this type would be facilitated by a prior buildup of equipment, supplies, and facilities.

The events of the past few years must have significantly increased the costs of maintaining Soviet ground forces. More than 30 divisions, most of which were formerly at low strength or in cadre status, are now being maintained at or developed toward combat strength along the Sino-Soviet border and in Czechoslovakia. The cost of equipping and maintaining all the ground forces has risen as new and more complex equipment has been introduced. This process is not complete, and the Soviets must reckon with the deferred costs of the modernization which has been delayed by the unscheduled increases in the size of the forces.

There appear to be no compelling reasons for the Soviets to increase the size of their ground forces

further or to redeploy existing forces in the next three to five years. Their border buildup is probably near completion, although their situation vis-a-vis China will impel them to retain large forces and possibly to earmark some forces in the western USSR for Asian contingencies. They apparently do not intend to increase their forces opposite NATO as a result of the crisis in reliability brought on by Czechoslovakia. On the other hand, they probably see fair prospects for a further gradual reduction of tensions in Europe--perhaps with a possibility of some small reduction in their forward area forces.

Therefore, while no clear indications of a trend are discernible, and the uncertainty of the Sino-Soviet question may bring unexpected changes, it appears likely that the ground forces will stabilize over the next year or so and may even decline slightly by 1974. Barring major hostilities in Asia, further major redeployments do not appear likely.

Conclusions

Warsaw Pact ground forces facing NATO in the Central Region of Europe consist of a forward force of about 50 combat ready Soviet and East European divisions. These are intended to be reinforced in an emergency by about 50 divisions, mainly from military districts in the western USSR.

After mobilization and reinforcement, the Warsaw Pact could deploy about 1.3 million men against the NATO Central Region. The principal striking element of this force would consist of some 20,000 tanks, supported by tactical missiles and rockets, about 1,800 ground attack and reconnaissance aircraft, and some 5,800 artillery pieces.

The infantry strength of this force would be relatively light and would include a large proportion of poorly trained reservists. More than half of the infantry in this force lacks modern amphibious armored personnel carriers (APCs), and some divisions would have to substitute trucks for APCs.

In a nonnuclear war, the Soviets would attach considerable importance to the use of artillery to facilitate a breakthrough of NATO's defenses. Soviet artillery, even though recently increased, would be limited in effectiveness by inflexible tactics and outmoded gunnery and by the fact that the guns are of light caliber and are not self-propelled. The limited amount of logistic support at division and army level, and possibly at front level, would seriously hinder the ability to conduct prolonged nonnuclear combat.

Soviet line divisions are small by US standards, but have about the same number of tanks as similar US divisions. A combat ready Soviet tank division has about 8,000 men and 2,300 major equipment items, including about 300 tanks. A motorized rifle division has about 10,000 men and 2,400 major equipment items, including about 190 tanks. Most East European divisions are similar to Soviet divisions in size and equipment.

Currently, only the Soviet line divisions in Czechoslovakia, East Germany, Hungary, and Poland and part of those on the Chinese border are kept at or near combat strength. Thirty-four other tank and motorized rifle divisions available for early commitment are located in the western USSR--in the Baltic, Belorussian, Carpathian, and Kiev military districts--opposite the NATO Central Region. Of these, about eight are at reduced strength (i.e., probably manned at between 50 and 75 percent of combat strength) and each is short about 600 general purpose vehicles. These divisions can be filled with reservists and mobilized civilian trucks and made ready for movement in 24 hours. About 26 are at low strength (i.e., probably manned at no more than 50 percent) and each is short between 800 and 1,300 trucks. These divisions could probably be made ready for movement in three to five days.

In addition, there are three cadre divisions in the western USSR that are probably manned at about 10 percent and are short substantial amounts of combat equipment as well as most of their trucks. These are probably intended to provide a base for long-term mobilization.

The Warsaw Pact is probably capable of mobilizing--calling up, assembling, and forming or integrating into units--the men and vehicles required to organize five fronts in Central Europe in about a week if the process is not interrupted by hostile military action. Their integration as combat effective units in the theater of operations, particularly at the front level, probably would require more time. In an emergency the mobilization and movement into Central Europe of the line divisions and the combat support elements of the Carpathian and Belorussian fronts could probably be accomplished in two weeks, although some important elements of the army and front rear services would still be incomplete.

In the past two years, the Soviets have been moving away from their former doctrine which held

that any war involving major nuclear powers would quickly and inevitably escalate to general nuclear war. They now appear to accept the possibility that conflict between NATO and the Warsaw Pact could be fought solely with conventional weapons.

As the Soviets move toward acceptance of the need for the capability to fight a sustained conventional action, they probably will increase the amount of combat and service support in their forces. The recent increase of artillery by 50 percent in the Soviet forces in East Germany is probably the reflection of a developing trend.

The Soviets see their military posture as essentially defensive. They and their East European allies maintain sufficient ready forces in the forward area opposite NATO's Central Region to guard against a surprise attack, and rely on rapid mobilization and early movement forward from the western USSR to provide sufficient force to launch a counter-offensive against NATO.

This combination of heavy reliance on allied forces and rapid mobilization capability enables the Soviets to keep their resources in men and equipment in active units low relative to the total force which can be mobilized. Should they decide to initiate an attack on NATO, however, they would probably need to mobilize and move forward the bulk of their reinforcement forces from the western USSR. This would permit organization of the initial attack so that Soviet fronts would be immediately available in all sectors and would reduce dependence on East European troops, whose reliability in an aggression against the West is uncertain.

The Soviets probably do not see the overall NATO threat as increasing. Rather, they probably anticipate its decrease over the long term. They recognize that the invasion of Czechoslovakia has delayed this process, but that they were successful in carrying out the intervention and subsequently leaving five additional Soviet divisions in the forward area

without causing any NATO reaction probably encouraged their long-term expectations.

The uncertainty of the Sino-Soviet situation may bring unexpected changes in force levels but, barring major hostilities in Asia, further major redeployments do not appear likely and no clear indications of a trend are discernible. It appears likely that the Soviet ground forces will stablilize over the next year or so and may begin to decline slightly by 1974.

[redacted]