INTERAGENCY WORKING GROUP 5 FOR

NATIONAL SECURITY STUDY MEMORANDUM 84

Final Report of the Working Group

THE WARSAW PACT THREAT TO NATO

SR JS 70-3
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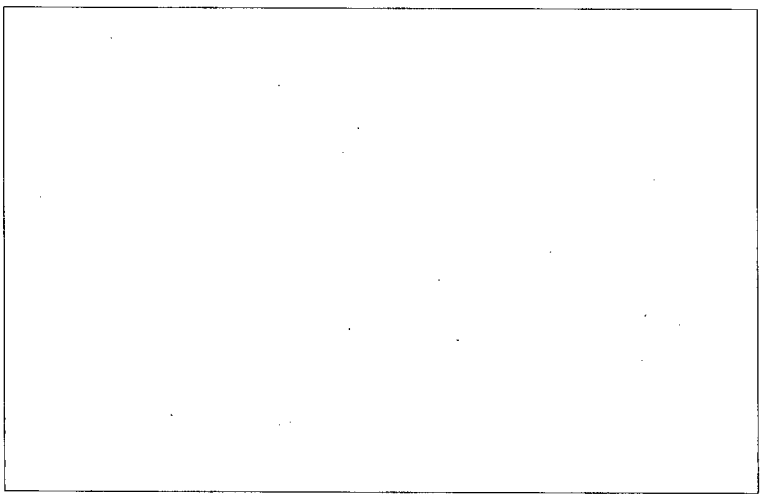

May 1970

The Warsaw Pact Threat to NATO
(NSSM-84)

Introduction

This is the final report of Working Group 5 of the Interagency Steering Committee for National Security Study Memorandum 84. Parts I and II, devoted primarily to Warsaw Pact capabilities and composition, constitute a revision of the First Phase report (SR JS 70-2) on the Warsaw Pact threat to NATO issued by the Working Group in February 1970. Part III, which considers contingencies in which Pact forces might be used, was issued as a separate report by the Working Group in April. Part IV estimates Pact military reactions to alternative US-NATO force structures and strategies. A summary of this final report begins on page 5. At the end of the report is a Statistical Annex, originally appended to the First Phase report, containing tables on Warsaw Pact force strengths.

Working Group 5 includes representatives of the National Security Council Staff, the Department of State, the Office of the Secretary of Defense (Systems Analysis), the Office of the Secretary of Defense (International Security Affairs), the Defense Intelligence Agency, and the Central Intelligence Agency. The intelligence data and estimates in this report were provided by the Central Intelligence Agency (chair), the Defense Intelligence Agency, and the Bureau of Intelligence and Research of the Department of State.

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Summary

The Soviet and other Warsaw Pact armed forces have four basic military missions on the continent of Europe:

-- To defend the USSR against overt and direct military threats emanating from or through the continent of Europe

-- To bring to a favorable conclusion military conflicts which may occur

-- To defend the territories of the Warsaw Pact member states and to maintain the Soviet hegemony in Eastern Europe

-- To support Soviet political policies in Europe.

The structure, deployment, and state of readiness of Soviet and Pact forces indicate that their mission does not presently include either territorial aggrandizement or the expansion of Soviet influence by military aggression.

Soviet forces, military doctrine, writings, and statements and the scenarios of military exercises all indicate that, once hostilities were under way, or appeared inevitable, Warsaw Pact forces would seek to take the initiative as early as possible launching a large scale offensive campaign which would have as its objective the destruction of NATO's military forces and the occupation of Western Europe.

There is general agreement, both within the US Government and throughout the Alliance, on the main outlines of the Warsaw Pact threat. In general the Pact forces were designed for short duration combat in the wake of strategic nuclear exchange. In addition to their conventional artillery and other arms, they are equipped with a variety of nuclear-capable systems, including rockets, missiles, and tactical aircraft. The Soviets have about 630 strategic

missiles and 595 medium bombers in the western USSR whose targets are in Western Europe. In addition, Soviet ballistic missile submarines in the Soviet Northern Fleet are, for the most part, also targeted against Western Europe. In recent years Soviet statements and Pact exercises reflect a concern for the possibility of conventional operations as well, and some steps are being taken to improve Soviet capabilities for nonnuclear war.

In the main area of possible conflict with NATO--opposite the Central Region--the Pact maintains a large combat-ready force of about 600,000 men in 52 divisions (27 Soviet, 6 East German, 12 Polish, and 7 Czechoslovak) and 11,500 tanks supported by about 2,800 tactical aircraft. The Pact employs a comprehensive mobilization system, under which reservists and trucks are to be taken from the civilian economy to bring reduced strength units up to combat strength. Successful execution of this plan could raise Pact strength in the Central Region up to about 1,290,000 men (60 percent of them Soviet), 20,000 tanks, 6,200 conventional artillery pieces, 3,700 combat aircraft, and some 500 nuclear-capable tactical missile and rocket launchers. Complete mobilization, deployment, and integration of these forces would almost certainly take at least three weeks. This process would generate indications to Western intelligence, but an understanding of ultimate Pact intentions would probably remain uncertain and might not provide a convincing basis for NATO mobilization.

In any crisis period which raised the possibility of war, the Pact would put a high premium upon completing the process of mobilization and reinforcement before hostilities began, yet it might be willing, under some circumstances, to attack earlier.

Some analysts believe that limitations in the Pact logistic system, such as low ammunition supply rates and insufficient transport, constitute significant weaknesses. These analysts also regard the Pact as vulnerable to an effective NATO antitank capability and to restrictions on Soviet lines of supply. Other analysts consider that the evidence on logistic

weaknesses is inconclusive and that reliance on civilian resources would not be a significant weakness.

Some analysts doubt that East European forces would prove reliable in a variety of contingencies while others consider that the East Europeans would be reliable in most circumstances.

We have considered a number of ways in which the Warsaw Pact might deliberately initiate hostilities, ranging from isolated attacks on NATO extremities through limited aggression in the Central Region to all-out attack on all NATO fronts. We conclude that, under the present East-West military relationship, the likelihood of a deliberate Pact attack is very low. It is possible, however, that Pact-NATO hostilities might develop in unintended ways, e.g., out of widespread revolts in Eastern Europe.

In considering how the Soviets might react to changes in NATO force structure and strategy, we note that Soviet planning is influenced not only by the basic military missions cited earlier, but also by economic constraints and a certain bureaucratic resistance to change. In general, Soviet planning probably would not be highly reactive to changes on the NATO side.

If the US were to reaffirm roughly its present deployments and NATO strategy remained unaltered, the Pact would probably continue at the deliberate pace of recent years with modernization programs designed to improve both conventional and nuclear capabilities. Withdrawals on the order of ten percent of US forces in Europe would have a negligible effect. A larger withdrawal--say on the order of one-third--would, in the view of some analysts, lead the Soviets to maintain or even step up the pace of their modernization programs in order to gain a useful military advantage. Other analysts believe that the Soviets would probably take the opportunity to level off or reduce these programs in order to meet other military and civilian priorities.

Changes in NATO strategy to emphasize theater nuclear warfare or to reduce the 90-day norms for conventional capabilities would reduce the requirements Moscow now perceives for improving Pact capabilities for sustained nonnuclear combat. Otherwise, these changes would not materially affect Soviet force planning, which already rests on a doctrine which assumes nuclear war in the theater.

Implementation of the force structures and strategies considered in NSSM-84 probably would not substantially alter the Soviet belief that military adventures against or all-out attack upon NATO would be a highly dangerous course of action. This is true even in the case of US withdrawals down to a level of, say, 100,000 men in Europe. This case would still require the Soviets to reckon with a substantial chance of nuclear retaliation. More important than US deployments, in the USSR's calculations on this matter, would be its interpretation of overall US behavior, and the inferences it would draw from this concerning US willingness to invoke its strategic power in extreme cases.

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I. Strategy, Structure, and Posture

This section discusses the general considerations and factors which have shaped the Soviet strategy, military force structure, and posture in Europe and which probably will also influence the formation of future Soviet European strategies and forces. Implications are provided on pages 27-30.

Warsaw Pact Mission

The Soviet and other Warsaw Pact armed forces have four basic military missions on the continent of Europe:

-- To defend the USSR against overt and direct military threats emanating from or through the continent of Europe

-- To bring to a favorable conclusion military conflicts which may occur

-- To defend the territories of the Warsaw Pact member states and to maintain the Soviet hegemony in Eastern Europe

-- To support Soviet political policies in Europe.

The structure, deployment, and state of readiness of Soviet and Pact forces indicate that their mission does not presently include either territorial aggrandizement or the expansion of Soviet influence by military aggression.

The Defense Intelligence Agency agrees generally with the conclusion in the above paragraph that the Warsaw Pact mission does not now include either territorial aggrandizement or the expansion of Soviet influence by military means. It is essential to note, however, that the Soviet and Eastern European Pact forces are capable of, and indeed designed primarily for, the conduct of offensive military operations in the Central Region of NATO should a war occur for reasons other than deliberate Soviet aggression.

At the end of World War II the USSR found itself with massive armed forces deep in Europe, with greater opportunity for the expansion of Russian influence there than had ever been possible under the tsars. At the beginning of the Fifties the Soviets had realized most of their objectives in Eastern Europe. Prospects for the expansion of Soviet power and influence elsewhere in Europe, however, had greatly diminished partly because of the nuclear monopoly held by the United States and partly because of an increased resolve on the part of the Western allies and the rapid recovery of Western Europe. The main objective remained, of course, the security of the USSR, but now this security was more closely tied to the stability and security of Eastern Europe.

In May 1955, West Germany joined NATO. In response to this event, as well as to provide a means of furthering Soviet political and military objectives in Eastern Europe, the Warsaw Pact came into being on 14 May 1955. As a military alliance the Pact provided a new means for Soviet control and coordination of bloc military capabilities in preparation for the execution of the new Soviet European strategy--the Khrushchev nuclear strategy.

The Khrushchev Strategy

Around the end of the Fifties the Soviets began to see war in Europe as nuclear from the outset. The strategy of the Khrushchev era called for the rapid exploitation of the initiation of hostilities to achieve long-standing Soviet European objectives. To this strategy it made little difference by whom or how hostilities were initiated.

The Soviet ground and tactical air forces which evolved in the early Sixties from this doctrine and strategy were structured to maximize their capabilities for general war and advance swiftly across Western Europe in the aftermath of a nuclear holocaust. The resulting forces had shortcomings for fighting a protracted, large scale conventional war.

Soviet forces were structured on the concept that a quick war obviated the need for heavy 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 its reserves. Large tank forces would then pass through these gaps and advance rapidly through Western Europe, bypassing or encircling any remaining NATO forces.

To fit their concepts, the Soviets accelerated the mechanization and streamlining process under way since World War II, discarding the infantry divisions, which had made up the bulk of their theater forces, and much of the massive artillery and tactical air support. They substituted a highly mobile force composed essentially of tanks supported by rockets and missiles with nuclear warheads. In addition the force had tactical aircraft with good mobility and dispersal characteristics but small payload capacities. By the early Sixties the reorganization was virtually complete.

At that point the Soviets and their Warsaw Pact allies could assemble a heavily armored force of some 20,000 tanks opposite NATO's Central Region. In comparison with previous Soviet concepts this force had a low infantry-to-tank ratio. The infantry that was retained was to be mounted in armored personnel carriers. There was little combat and logistical support.

The Soviet concept required the motorized infantry to keep pace with the tanks, but most of the armored personnel carriers available were deficient in mobility and protection for the infantry being transported, and even these were in short supply. Artillery forces lacked mobility, firepower, and armor for protection in a fluid tactical situation.

The Soviets evidently had concluded that tanks were the essential ingredient and that a relatively low infantry and artillery strength was acceptable. Except for units already deployed on the frontiers with NATO, the newly reorganized ground forces relied on mobilization from the civilian economy for most of their cargo trucks and much of the manpower needed to make them ready for combat.

Some Soviet military leaders began to question the established theater warfare doctrine in the light of the condition of mutual deterrence which was then emerging and US advocacy of the doctrine of flexible response. These Soviet military spokesmen generally agreed that the war with NATO would not necessarily be nuclear from the outset, but there was considerable disagreement over the probable duration of a nonnuclear phase of conflict.

Beginning about 1960, the Soviets accelerated the conversion of their East European satellites into effective military allies. The East European armed forces --particularly those of Poland and Czechoslovakia--were being organized and equipped to conduct semi-independent military operations under overall Soviet control. The Soviets probably believed that in the event of a NATO attack these forces--being in the forward area and capable of quick reaction--could be relied on to fight effectively until the arrival of Soviet reinforcements. At the least the East Europeans, together with the Soviet forces in the forward area, could be counted on to take much of the edge off the initial combat effectiveness of NATO's forces.

Thus the aim of the Soviets was to build up the military potential of their allies and at the same time to realize substantial peacetime economies in their own forces. In this way they evidently expected to ensure the successful defense of their forward area positions while mobilizing and deploying the large reinforcements which they consider necessary to seize the initiative and complete the military occupation of Europe.

Military Posture

Soviet military actions in Europe have, to date, been intended to preserve the status quo and test Western will and determination. The present Warsaw Pact force is certainly adequate to this task though the force remains postured for the execution of its basic military missions.

The Soviets, however, do not have--and apparently have not sought to posture their theater forces in a manner to provide them with--the capability to overwhelm NATO by attacking without prior buildup. They have relied on strategic warning and a period of increasing international tension for the time to build up sufficient forces to neutralize NATO forces and occupy Western Europe. They have not provided their forces in the forward area with the kind of logistical support necessary for a successful offensive across Western Europe. Soviet security depends heavily on large semiautonomous East European national armies whose reliability is uncertain, particularly if used as striking forces in a Soviet-led aggression.

The Defense Intelligence Agency agrees that Pact forces currently deployed in the forward area could not "overwhelm NATO" without prior buildup. They do, however, constitute a very formidable striking force. They could be used offensively either to gain limited objectives or to disrupt NATO forces in the Central Region and keep them "off balance" prior to commitment of a larger bloc force with greater overall combat power. Such an option would most likely appeal to the Soviets in a crisis situation where the advantages of taking direct action seemed to outweigh the disadvantages of forgoing deliberate pre-preparation of their forces.

DIA feels that definitive information is lacking on the order of battle and the function of Soviet combat service support. The extensive POL and ammunition storage facilities throughout Eastern Europe indicate that the Soviets should be able to satisfactorily support the forces currently deployed.

DIA further believes that the Eastern European countries would be reliable in any

action where NATO, in particular West Germany, was the aggressor or in any action where the Warsaw Pact was on the offensive, at least in the early stages of a future conflict.

Despite the defensive nature of their overall military posture in Europe, the Soviets' forces, military doctrine, writings, and statements and the scenarios of their military exercises all indicate that, once hostilities were under way, or appeared inevitable, the USSR would seek to take the initiative as early as possible. Soviet forces would then launch a large scale offensive campaign which would have as its objectives the destruction of NATO's military forces and the occupation of Western Europe.

The Defense Intelligence Agency feels that the Soviet posture in Eastern Europe contains substantial offensive capabilities. Therefore, the Soviet overall military posture cannot be described as either offensive or defensive.

Soviet strategic planning appears to be premised on an estimate that the Warsaw Pact holds the advantage in the balance of Warsaw Pact versus NATO theater force capabilities. The Pact leaders apparently believe that, in the event of a conflict in Europe, which may be conventional at the outset, NATO would resort to tactical nuclear weapons rather than suffer total defeat. Moreover, the Soviets apparently assume that a surprise NATO-initiated military action, while theoretically possible, is unlikely; they assume that a full NATO offensive against the Pact without strategic warning is militarily and politically unlikely. The Warsaw Pact force structure and strategy are posited on the assumption that any major NATO military action would be detected in time to permit reaction by Warsaw Pact forces, perhaps including some preemptive moves.

Warsaw Pact War Planning

Consideration of the organization and deployment of the Warsaw Pact forces, and of Warsaw Pact military writings and exercise scenarios, leads to the conclusion that the Soviets have developed a basic

plan for the conduct of war against NATO. The main variable in the execution of the plan, and the one which would govern the configuration in which Warsaw Pact forces would enter combat in the critical Central Region, is the timing of the onset of hostilities.

In general, the plan calls for the organization of five Warsaw Pact army groups--called fronts--in two echelons* opposite NATO's Central Region. During the first ten days after the Pact initiated its buildup, only three fronts would actually be available for combat while the other two were being mobilized and moved forward from the western USSR. The three forward fronts would include a central one made up from combat-ready Soviet and East German forces now located in East Germany, a southern front made up of Czechoslovak and Soviet forces now in Czechoslovakia, and a northern front made up initially of Polish forces. The Soviet and East German forces are combat ready now. However, Polish and Czechoslovak armies and fronts require substantial mobilization.

The units of the two reinforcing fronts from the western USSR would have to be filled out with large numbers of civilian vehicles and reservists to achieve combat strength. To achieve a rapid reinforcement, Soviet plans provide for a piecemeal movement of these units as they become available. Some of the combat elements of the reinforcing fronts could arrive in Poland and Czechoslovakia in about five or six days and all of the divisions could probably arrive in

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* *"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.*

about ten days. Most of the trucks and a substantial amount of the personnel of the service support organization at front and army level would have to be mobilized from the Soviet economy. It is estimated that the complete organization of these two fronts into forces prepared to conduct a coordinated offensive would almost certainly take at least three weeks.

When this Warsaw Pact force is assembled its five fronts would contain about 1,290,000 men (60 percent of them Soviet), 20,000 tanks, 6,200 conventional artillery pieces, 3,700 combat aircraft, and 500 nuclear-capable tactical missile and rocket launchers.

By the end of the first week after a buildup had begun the Soviets would probably be in a position--if they chose--to begin introducing more Soviet combat units into the northern and southern fronts. By this time, effective Soviet command and control could be imposed over all the fronts. Even if hostilities did not begin until the Soviets' reinforcement was completed, however, they would probably still keep many of the East European forces in the first echelon while retaining a large Soviet second echelon. This would tend to ensure the East Europeans' commitment to the war since the bulk of Polish, East German, and Czechoslovak forces would be engaged while Soviet contingents were behind them. Moreover, it would preserve large Soviet uncommitted forces for use in the main Warsaw Pact westward offensive.

In addition to the forces assigned opposite the Central Region the Soviets would have a large strategic reserve composed of forces from the Kiyev and Moscow Military Districts. The Soviets would probably commit these reserves should serious reverses occur in any area but would always first view such commitment in the light of the situation in the Central Region. In any case, by definition the strategic reserve would be withheld from combat at the outset of hostilities and would be retained in a central location from which it could be quickly deployed to the important potential trouble spots or to exploit favorable opportunities, especially in the Central Region. Soviet forces in Hungary could support operations in either the central area or in the south.

Much less is known about Soviet planning for campaigns outside the Central Region. Should the Soviets elect to execute the above described buildup against NATO, they would probably also mobilize their forces opposite Scandinavia and the southern flank of NATO for contingencies in those areas.

On the southern flank only the Bulgarians are likely to contribute to offensive action. Supported by the Soviet theater forces from the Odessa Military District, they could launch an offensive against Greece and European Turkey. The Soviet Black Sea Fleet would be important to such an offensive. The fleet is a balanced force designed to maintain Soviet naval supremacy in the Black Sea and provide logistic support for the Soviet naval squadron in the Mediterranean. This fleet could also support land operations and conduct amphibious assault operations in the Black Sea. Should the Soviets fail to secure the Black Sea exit, they would be unable to reinforce or support the Mediterranean Squadron quickly. In any combat situation with NATO, short of general nuclear war, the Soviet surface forces in the Mediterranean would lack air cover and have limited underway replenishment facilities. They would seek to attack Western naval forces, particularly aircraft carriers. In addition, the Soviet threat to Western naval forces and sea lines of communication would be enhanced by the difficulties of detecting Soviet submarines, and by the USSR's capability of bringing more submarines into the Mediterranean from the Atlantic.

Undoubtedly, the territories controlling the entrances to the Baltic and Black seas are desirable prizes in Soviet eyes. Neither, however, would be essential to the success of the main campaign against the Central Region. An attack on the Turkish Straits, in particular, would tend to divert Soviet forces which might be needed as reserves for the main campaign, but would not be likely to draw substantial NATO forces away from the critical Central Region. In the case of eastern Turkey, the difficulty of mounting a campaign, and the lack of important objectives, suggest that the Soviets would prefer to maintain a threatening stance there with minimum forces in order to keep Turkish forces in place.

The Defense Intelligence Agency feels that an attack on the Turkish Straits would not tend to divert Soviet forces intended for the Central Region. The Warsaw Pact has Bulgarian, possibly Romanian, and Soviet forces from the Odessa Military District which could be employed in an attack in this area. Soviet strategic reserves exist. The Soviet forces in Hungary and the Hungarian forces also could be used.

Soviet naval forces in the north pose a major threat to NATO control of the Atlantic. The Northern Fleet is the largest Soviet fleet and the only one of the three Soviet European fleets with unimpeded access to the open ocean. In times of crisis the Soviets would seek to augment the Northern Fleet with units from the Baltic.

Despite the difficult terrain and climate of northern Norway, a Soviet attack there would be militarily feasible [redacted]. The main objectives of such an attack would be to take Norway out of NATO and preclude NATO use of Norwegian territory and, in the event of prolonged hostilities, to provide bases for Soviet naval and air operations.

If the Soviets planned an attack on Norway they might violate Finnish territory as a means of strengthening and broadening the attack. However, to do so would risk involving both Finland and Sweden and entangling large Soviet forces in Scandinavia.

In the light of the cost weighed against the gains to be had in Scandinavia, a more reasonable Soviet course of action would seem to be to attempt to frighten Norway into inaction by threats rather than attacks. In any case, a successful campaign in the NATO Central Region would probably put the Soviets in a position to dictate the fate of Scandinavia without direct use of force.

The Defense Intelligence Agency feels that Norway is the key to control of the sea and air routes used by Soviet air and naval forces to reach the Atlantic. Soviet occupation of Norway would provide ice-free naval bases for tactical operations against

northern Europe and would jeopardize NATO's ability to protect sea lines of communications in the Atlantic. In the light of the advantages that would accrue to the Soviets it is probable that they would carry out such an operation in the event of hostilities with NATO.

The Warsaw Pact planning provides few options with regard to the size of forces, axes of their employment, or the area of the conflict. Specifically, any action executed against any part of NATO for any objective runs the risk of triggering the full NATO response against the Warsaw Pact. In short, no matter how hostilities begin, the Soviets would attempt to develop their forces in accordance with the basic war plans.

Soviet and Warsaw Pact armed forces are militarily capable of conducting operations not involving the main force of either side. However, a decision to limit operations would not change the requirement to stand ready for a full scale NATO response against any or all of the Warsaw Pact area. As a result, the basic Warsaw Pact force levels, structures, dispositions, or plans would not change substantially should an action occur, be threatened, or be planned on the flanks.

Nonnuclear Capability

"Flexible response" concepts have entered Soviet military doctrine during the past few years. 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 new conventional war options exist because of the growing strategic nuclear capability of the USSR.

The clearest evidence 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 followed scenarios which assumed that the war began with a NATO conventional attack. Typically, 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 the structure of Soviet forces are more tangible evidence of Soviet acceptance of the possibility of nonnuclear war. Field artillery in line divisions in the Group of Soviet Forces in Germany (GSFG) has been increased. In the motorized rifle divisions, 6 152mm howitzers were added to the artillery regiment and 6 122mm howitzers were added to each motorized rifle regiment--overall a 50-percent increase in GSFG motorized rifle division artillery. In the tank divisions of GSFG, 18 122mm howitzers were added to the division artillery regiment and 6 122mm howitzers were added to the rifle regiment--overall a 65-percent increase in tank division artillery. In both the motorized rifle and the tank divisions the number of multiple rocket launchers was increased from 12 to 18, and the FROG battalion of each division gained one launcher, raising the total number of divisional FROG launchers to 4.

Aside from these artillery increases, however, it is not evident that the Soviets are attempting to restructure their ground forces to improve their capabilities for a sustained nonnuclear war.

The Soviets have not increased their infantry strength facing NATO. In fact, the more recent trends in armored personnel carriers--i.e., the development of the BTR-60 PB and the tracked infantry combat vehicle, which carry a single infantry squad in a low-silhouette, tracked, heavily armed, amphibious armored vehicle--support that Soviet thinking on infantry organization and tactics remains relatively unchanged since the early Sixties. With this new scale of equipment, infantry combat power will probably increase, but the logistical and service support burdens imposed by these vehicles will increase as well.

The Soviets' greatest potential weakness in prolonged combat is logistic support. For example, although the Soviets have increased the number of artillery pieces they have not increased their ammunition supply rates, which are low by US standards.

Combat-strength Soviet line divisions carry three days' supplies for intensive combat, and Soviet field army mobile reserves amount to about two days' additional supplies per division. Soviet combat units then would be dependent for resupply on the rear services of the front. Most of the trucks and a substantial number of personnel of the rear services organization called for in the basic plan must be mobilized. Major elements of the rear services were successfully mobilized and tested during the 1968 Czechoslovak crisis, although the total rear services organization has not been comprehensively tested.

The Defense Intelligence Agency feels that definitive information is lacking on the order of battle and the function of Soviet combat service support. The extensive POL and ammunition storage facilities throughout Eastern Europe indicate that the Soviets should be able to satisfactorily support the forces currently deployed.

DIA also believes that there is insufficient substantive intelligence available to draw the conclusion that the Soviets "have not increased their ammunition supply rates."

The central and inescapable characteristic of the Soviet forces is their superiority in numbers of tanks. Even in a nuclear war, Soviet doctrine prescribes--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.

This reliance on armor has resulted in a low ratio of infantry to tanks in the Warsaw Pact forces. In pure numbers, the Soviets and their Polish, East German, and Czechoslovak allies could assemble some 20,000 medium and heavy tanks opposite NATO's Central Region and back these up with about 4,000 more in strategic reserves (in the Moscow and Kiyev military districts). This would give them a numerical superiority in battle tanks over NATO on the order of 3.5 to 1. On the other hand, after reinforcement, the Warsaw Pact forces in the Central Region and in the strategic reserve would have only about 130,000 riflemen, which is about the same as NATO has in the Central Region.

After being reorganized about 1960, the Soviet Tactical Air Force emphasized qualitative improvements in its air defense capabilities and put less emphasis on the development of nonnuclear ground attack capabilities. Most new aircraft (the MIG-21 and the SU-7) were originally designed as interceptors. The use of these aircraft in the ground attack role is limited by their small payload capacities (no more than 4,000 pounds) and short combat radii. The YAK-28 Brewer light bomber, which entered service in the early Sixties, also has a small payload capacity (about 3,500 pounds), and it is out of production, with only some 180 deployed. Recently the Soviets have increased the survivability of the tactical air forces by constructing aircraft shelters and by adding SA-3 missiles and antiaircraft guns for airfield defense.

Nuclear Warfare Capability in Europe

The Soviets now accept the possibility that a NATO - Warsaw Pact conflict can be fought solely with conventional weapons. The exercise scenarios probably reflect genuine contingency plans but the nonnuclear phase portrayed has not involved a Warsaw Pact offensive of more than a few days. The Soviets apparently do not believe that NATO would accept total defeat without resort to all available weapons.

The Soviets have equipped their theater forces with a variety of nuclear-capable weapon systems, including rockets, missiles, and tactical aircraft. In addition, the Soviets have about 630 strategic missiles located in the USSR whose targets are almost certainly in Western Europe. Soviet Long Range Aviation contains a large force of medium range bombers that would be used for strikes against Western Europe. The diesel powered ballistic missile submarines in the Soviet Northern Fleet are also estimated to be targeted for the most part against Western Europe. [redacted] does not indicate the targeting, target priorities, or command and control procedures which the Soviets would use in employing these strategic means of attack in support of operations in Central or Eastern Europe. (See Table 11, Section V.)

Warsaw Pact Strengths

A major strength of the Warsaw Pact is its capability to rapidly concentrate large, tank-heavy forces against NATO frontiers. In the main areas of possible conflict with NATO--opposite the Central Region--the Warsaw Pact maintains a large combat-ready force of some 50 divisions with more than 11,500 tanks supported by about 2,800 tactical aircraft.

In about three weeks the Warsaw Pact could probably build up forces totaling about 33 armies consisting of some 144 divisions against the various NATO frontiers--about 20 of these armies against NATO's Central Region alone. These forces would give the Warsaw Pact a tank superiority over NATO of about three to one.

Valuable practice and training of Pact active and reserve personnel was provided by the 1968 invasion of Czechoslovakia. During this operation some of the forces from five countries were ultimately deployed. In addition frequent training exercises are conducted by components of Pact forces in the forward areas geared to wartime contingency plans against NATO. Multinational Pact exercises are also conducted several times a year.

Nearly all Soviet fighter bases in Eastern Europe have hardened shelters for all of their aircraft,

thereby increasing their chances for survival in the event of hostilities particularly in conventional war.

The Warsaw Pact fronts have strong organic tactical nuclear capability. In addition, the Soviets have the capability to support these fronts with MRBMs, IRBMs, and other strategic weapon systems. The Soviets also have some 250 submarines of all types for use in support of hostilities in Europe.

Warsaw Pact Weaknesses

Despite the overall numerical superiority of the Warsaw Pact forces available for the Central Region, these forces have some weaknesses and potential vulnerabilities. Except for the Soviet and East German forces now deployed in the forward area, Warsaw Pact forces would require large numbers of reservists and civilian trucks to reach combat strength. These reservists, which would make up the bulk of the support forces as well as the infantry, generally lacked training in their wartime assignments prior to the invasion of Czechoslovakia. During the crisis, 13 Soviet divisions and some support units were built up to combat strength with reservists. Since the Czechoslovak crisis, however, there has been no indication of an effort to increase or improve Soviet reservist training. The civilian trucks lack many of the mechanical capabilities of military trucks and are less well maintained.

The Defense Intelligence Agency believes that the discussion given of reserve training is highly misleading. The Soviet and East European countries maintain very extensive premilitary, active duty, and reserve training programs. The great bulk of the fit young men serve two or three years of conscript duty in the active forces. More than half a million such men are returned to civilian life from the services each year. Any of those who had been released from service within the past year or two would be almost immediately effective in their military specialities--particularly in the infantry and support categories--upon mobilization.

The amount of reserve refresher training given to men out of the service varies and probably diminishes as they grow older. Many thousands of reserves receive some training with the active forces each year, however. On balance, the ready availability of very large numbers of suitably trained men is a Pact strength, not a weakness.

DIA further believes that the bulk of the Pact civilian trucks are comparable in basic characteristics to their military counterparts.

After mobilization, the infantry strength of the Warsaw Pact forces would be light and would include a large proportion of reservists. More than half the infantry in the force lacks modern amphibious armored personnel carriers (APCs), and some divisions would have to substitute trucks for APCs.

Soviet tube artillery is towed rather than self-propelled; it is generally lighter in caliber than NATO artillery and is outranged by some. Soviet techniques for the employment of artillery are not up to those of the US. In Soviet artillery units there is a strong tendency to rely on rigid prior planning, and they do not practice many of the modern techniques for the massing of fires.

Although the Warsaw Pact would have about 2.5 times as many artillery weapons as NATO, including roughly twice as many guns and howitzers, planned Warsaw Pact supply rates for artillery are only a little more than one-third of NATO rates. Taking into account the weaknesses in Soviet artillery tactics and gunnery techniques, and the Soviets' low ammunition supply rates, it appears that NATO artillery would probably be capable of delivering a greater overall volume of accurate artillery fire than Warsaw Pact artillery.

The Defense Intelligence Agency does not concur that all the views represented are Pact weaknesses. To do so would force one to believe that the Soviets have not given careful thought to the manner in which they have organized and equipped their forces for any future combat. DIA also believes that there is insufficient substantive intelligence available to draw the conclusion that the Soviets have not increased their ammunition supply rates.

The need to sustain a force of 20,000 tanks planned for employment in the Central Region in intensive combat over great distances will surely tax the limited logistics capability of the Pact. Warsaw Pact forces would be vulnerable to a combination of effective antiarmor warfare tactics, forces, and weapons and successful interdiction of the logistic system.

The Defense Intelligence Agency believes that the large number of tanks in the Pact force is a strength, not a source of weakness. Any logistics limitations are, in fact, a function of the number of tanks to be employed. This would be accounted for in planning by the Soviets and it is unlikely that they intend to employ more tanks than they can effectively support. Further, even in the initial phase of operations, all the tanks will not be engaged continuously in "intensive combat," but rather, at times, also at "average" or even "low" combat levels. Whether or not they range over "great distances" will depend on the logistics support available as well as combat success. DIA agrees that "Pact forces

would be vulnerable to a combination of effective antiarmor warfare... and successful interdiction of the logistic system," but this is a vulnerability that is contingent upon uncertain NATO capabilities and not a Pact weakness.

Implications

The present posture of Warsaw Pact forces intended for employment against NATO is essentially defensive. This is evidenced by the structure, disposition, and state of readiness of Pact forces both in the forward areas and in the western USSR. However, Warsaw Pact tactical doctrine emphasizes offensive operations and, once hostilities began in the Central Region or appeared inevitable, the Soviets would probably attempt to seize the initiative as soon as possible and launch a large scale offensive.

The Defense Intelligence Agency feels that Warsaw Pact forces cannot be categorized as either offensive or defensive because the Soviet posture in Eastern Europe contains substantial offensive capabilities.

Without reinforcement, the forward elements of the Warsaw Pact forces are not capable of overwhelming NATO in the Central Region. To ensure success, the Soviets would probably judge it mandatory to complete the mobilization and assembly of the bulk of all five fronts in the forward area before launching an attack. This process would almost certainly take at least three weeks and be identified by NATO.

The Defense Intelligence Agency agrees that "without reinforcement, the forward elements of the Warsaw Pact are not capable of overwhelming NATO in the Central Region," in the full meaning of the term "overwhelm." The forward deployed Pact forces could, however, launch a powerful attack, achieve significant penetration, and maintain forward tactical momentum until additional forces were brought up. This attack could occur with little or no prior detection by NATO.

Additionally, the Pact could increase the strength of the forces in the forward area without eliciting a reaction by the West by disguising their reinforcement in the form of an exercise or they could prepare forces in the western edge of the USSR for rapid reinforcement with little chance of detection. Nevertheless, the Soviets could not have high confidence that their plans would go undetected or that they could overrun NATO without mobilization.

In the Soviet view, the forces of the Warsaw Pact are not intended for a surprise general offensive. They are designed to resist any NATO military initiative while being reinforced, and to counter with a force capable of neutralizing NATO military capabilities and securing the continent of Europe. The Pact forces are intended to execute this mission whatever the broader world military situation, which may or may not include general war.

To achieve their objectives, the Soviets have a basic war plan for the employment of Warsaw Pact

forces against NATO. This plan provides, after mobilization and reinforcement, for employing five fronts against NATO's Central Region. This alignment and capabilities of the Warsaw Pact do not exclude the possibility of Soviet military operations in other areas. However, any such operations would have to take into account the major threat to the Warsaw Pact in the Central Region. This threat precludes major shifts of Pact reinforcements from their designated areas of employment to other areas.

The Warsaw Pact has vulnerabilities, particularly in hostilities which extend beyond the period of relatively short endurance for which the Pact forces are now configured. With its heavy dependence on tanks, the Pact would be vulnerable to an effective NATO antitank capability combined with restriction of Soviet lines of supply. The present posture of the Warsaw Pact necessitates the mobilization and movement of large reserves over great distances before they can be committed against NATO.

The Defense Intelligence Agency does not believe that the capabilities of Pact forces are of "short endurance." Rather, their capabilities would grow steadily as they draw upon their extensive reserves of manpower and equipment and take advantage of their direct overland access to the battle area.

Moreover, the configuration of the present forces, which gives rise to the judgment in the paragraph above, would be drastically altered with mobilization. In particular, the current "low" infantry-to-tank ratio and the relatively "limited" rear services (logistics) apparatus would be steadily overcome as these would be

precisely the areas of greatest emphasis for mobilization.

DIA questions whether the "heavy dependence" of the Pact on tanks makes it vulnerable to antitank warfare. It certainly cannot be presumed that the Pact would be less vulnerable if the attacking force contained less armor. Additionally, DIA believes that the degree of Pact vulnerability to NATO antitank and interdiction efforts is almost entirely dependent on NATO capabilities which are not discussed in this paper.

II. Composition of the Forces

This section discusses the organization, current dispositions, and peacetime combat readiness of the Warsaw Pact general purpose forces facing NATO. The ability of the US intelligence community to estimate the size and capability of these forces has greatly improved over the last three years. New information from a variety of sources and improved methodology has enabled a comprehensive reassessment of the capabilities and status of the Soviet ground and tactical air forces which constitute the bulk of the Warsaw Pact forces available for war in Europe.

Ground Forces

The Soviets maintain a large number of relatively small, heavily armored divisions at various levels of readiness. For the most part, divisions at the higher levels of readiness are subordinated to armies (in some cases to corps). In wartime these armies and corps would be incorporated into the so-called fronts. The combat power of Soviet ground forces is concentrated in the division to a greater extent than in Western forces, and the higher Soviet echelons have fewer combat and support units. In general, the levels of service support are austere.

Fronts

There is no evidence that the Soviets consider any of their present large theater force commands as fronts--a term apparently reserved for wartime situations. A wartime front would consist of at least three ground armies (and/or corps) and a tactical air army. It might also include one or more airborne divisions. In addition, fronts would contain such nondivisional support as artillery divisions or brigades, tactical missile units, air defense missile units, engineer units, and rear services.

The Group of Soviet Forces in Germany (GSFG) is virtually a front in being. Upon mobilization for operations in Europe, two fronts would probably be formed in the USSR's western military districts (MDs) for reinforcement opposite the Central Region of NATO, and one might be formed in the Odessa MD on the southern flank of NATO.

In wartime, the Soviets would probably establish theater level headquarters in areas involving more than one front and/or elements from several types of forces--e.g. theater forces, air defense forces, and strategic attack forces.

Armies and Corps

It is believed that in wartime Soviet ground forces would be deployed and fought primarily as armies or corps. There are 19 Soviet ground armies; it is expected that additional armies will be formed in the Sino-Soviet border area. Most of the armies within the USSR would require mobilization of army level support units prior to commitment. The armies in GSFG, however, are almost certainly combat ready as they now stand.

Soviet armies have from 3 to 5 line divisions and additional supporting units. These armies are probably intended for commitment with their normally assigned division structure, but the Soviets have demonstrated that divisions can be readily transferred among armies if necessary. Armies are nominally 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 divisions. Most armies now appear to be of the combined-arms type.

Soviet armies have rather light combat support. Typical of army level combat support units are: an artillery brigade (54 guns); a Scud missile brigade (6 or 9 launchers); an air defense missile regiment;

a signal regiment; engineer bridging and assault river crossing units. The inclusion of such units in the various armies apparently depends upon wartime missions and peacetime readiness levels. For example, in GSFG one, possibly two, of the five armies lack an artillery brigade. The army troops of Soviet armies in the GSFG range from 9,000 to 12,000 men.

There are a dozen or so Soviet corps headquarters. They do not represent an intermediate echelon between division and army headquarters. In most cases they function as small army headquarters. They have few nondivisional support units, sometimes none. Three of the five divisions now deployed in Czechoslovakia are subordinated to a corps heaquarters.

Divisions

The Soviets now have a total of at least 157 line divisons of three different types: 97 motorized rifle, 53 tank, and 7 airborne. On the basis of the availability of forces, some 30 divisions of this total are intended to confront NATO in the event hostilities began before Warsaw Pact mobilization.

The Soviet motorized rifle and tank divisions are basically designed for combat of short duration on a nuclear battlefield. They have a very high proportion of tanks to personnel, and when fully equipped with vehicles they have excellent tactical mobility. To achieve these characteristics the Soviets have sacrificed staying power to some extent. The divisions are apparently designed to fight until relieved by fresh divisions.

East European line divisions are generally patterned on the Soviet model, although there are substantial variations in some countries. In general, East European field armies do not exist as separate entities in peacetime, but East European ground forces conduct army level exercises, and some front level elements probably exist in peacetime. In wartime, armies would be formed during mobilization

from staff elements and units of the territorial military commands. They would contain from 3 to 5 divisions and combat and service support units, and would be similar to the Soviet combined-arms armies.

Categories of Readiness

Soviet ground divisions vary widely in terms of peacetime personnel strength, levels of major items of equipment on hand, and modernity of equipment. They also vary as to the extent and type of training conducted. Available evidence on Soviet divisions provides a reasonably firm basis for estimating equipment levels and the extent of training activity. Information on personnel strengths is less complete. It is believed, however, that there is a relationship between equipment and personnel levels.

Despite considerable variation, Soviet divisions fall into three general groupings consistent with the states of readiness described in Soviet military writings. Divisions stationed in areas where filler personnel and equipment are not readily available, such as those in Eastern Europe and some of those in the Sino-Soviet border area, probably have all or almost all of their equipment and personnel. The seven Soviet airborne divisions are probably equipped and manned at the same general levels. These divisions are essentially combat ready as they stand. These are designated Category I.

Also designated Category I are a number of divisions located in the western USSR which can be readied for commitment very quickly. They are not manned and equipped at the same high levels as those described above, but can be fleshed out with specified local reservists and 400 to 600 civilian vehicles and be made ready to move within a day or two, thus meeting the criteria for a high state of readiness. These divisions have 75 to 80 percent of their equipment on hand. Their personnel strengths probably range around two-thirds of the level found in divisions in the GSFG,

but with considerable variation among divisions. Personnel strengths would tend to be higher in subordinate tank units and lower in motorized rifle units.

The second major grouping consists of divisions having about 45 to 65 percent of their equipment. Their personnel strengths vary considerably, probably ranging from about one-quarter to one-half of GSFG levels. These divisions could be filled up with reservists, augmented with up to 1,300 civilian vehicles, and deployed within several days to a week. These are designated Category II.

There are some Soviet divisions with even less equipment than Category II divisions. They probably contain about 1,000 men each, primarily an officer cadre and enlisted caretaker elements. They appear to be intended for later mobilization, and probably could not be equipped like other Soviet divisions without increased new production. These are designated Category III or cadre divisions.

Few, if any, of the East European divisions are maintained at full strength during peacetime. The best of these would contain 10 to 20 percent reservists after mobilization. Some of the lower-strength and newly activated units would require 50 to 80 percent reservists as fillers. Like the Soviets, the East Europeans would require significant numbers of reservists in order to form army and front level units.

Division Equipment

The Soviet motorized rifle division (MRD) at full strength has about 10,000 men and about 2,450 major items of equipment. The equipment includes 186 medium tanks, 200 armored personnel carriers (APCs), and 72 artillery pieces. The Soviet tank division at full strength has about 8,000 men and 2,300 major items of equipment, including 310 medium tanks, 80 APCs, and 60 artillery pieces. Soviet airborne divisions have about 6,000 men and 1,000 major items of equipment.

A few tank divisions have previously been carried as "heavy tank divisions." These were smaller (lacking a motorized rifle regiment) and contained heavy tanks (T-10 and JS-3). Heavy tanks are still observed in some tank divisions, but it is not certain now whether a "heavy tank division" exists as a separate type.

Soviet divisions inside the USSR, with the exception of those along the Sino-Soviet border, are probably not as generously equipped with new model equipment as those in GSFG. There is, however, no apparent uniform distribution of new equipment. New models of armored vehicles have been detected in some divisions of each category, but a Carpathian MD Category I division which participated in the invasion of Czechoslovakia lacked antitank guided missiles and was short of APCs. (After it became part of the occupation force, these deficiencies were corrected.) Two Category II divisions mobilized at the time of the invasion had few or no APCs. On the other hand, one division from the Baltic MD was fully equipped with the newest Soviet medium tank, the T-62.

Armored Vehicles

By far the predominant feature of Soviet ground force equipment is the tank. The Soviets would require over 34,000 medium tanks to equip all categories of divisions fully. Even a modest estimate of tanks not in divisions would raise this number to over 35,000. Large scale and continuous peacetime tank production would be necessary to meet these requirements and to maintain a modernization program. It is believed that the annual production of T-54 and T-55 model medium tanks through 1968 was adequate to provide a current inventory of about 24,000 of these tanks and to account for Soviet exports to other countries. The newest medium tank, the T-62, has been produced at a more moderate pace; about 6,500 are probably now in inventory. The remaining requirement (about 4,500 tanks) appears to have been met at least to some extent by the use of older model tanks and assault guns. No large reserves of Soviet tanks are known to exist.

Soviet tactical doctrine calls for the mounting of all infantry in amphibious APCs, preferably on the basis of one per squad--this would require about 37,000 vehicles. To equip all Soviet forces with APCs on the lesser scale evident in GSFG, the Soviets would require an inventory of about 26,000 such vehicles. Analysis indicates that there are about 16,000 APCs in the Soviet inventory, fewer than half of which are new amphibious models (BTR-50 and BTR-60). The rest are older model BTR-152s and BTR-40s which are essentially nonamphibious armored trucks with relatively poor cross-country mobility. Some APCs are found in divisions at all levels of readiness, but in general Category I divisions in the USSR probably have fewer APCs (and older models) than found in GSFG divisions. Many Category II divisions probably depend primarily on using mobilized civilian trucks for personnel carriers.

Artillery Support

A high density of tanks provides Soviet ground forces with very heavy direct fire support. Soviet capabilities to provide continuous indirect fire support are less impressive. One common Soviet practice designed to compensate for this is the use of tanks to provide indirect fire support from defilade positions. The emphasis on tank fire is fully consistent with Soviet concepts of ground force operations in the nuclear environment.

Recent changes in Soviet artillery strength in the GSFG have resulted in an overall increase of 480 in the number of guns available. In addition, there has been a 50-percent increase in the number of multiple rocket launchers. These increases have probably also occurred in some of the forces along the Sino-Soviet border, but there is no evidence of them in other ground forces elsewhere in the USSR. These developments improve the capabilities of the ground forces for conventional operations. All Soviet tube artillery is towed rather than self-propelled. It is generally lighter in caliber than NATO artillery and is outranged by some.

Soviet techniques for the employment of artillery are not up to those of the US. There is a strong tendency for Soviet artillery to rely on rigid prior planning. The Soviets do not practice many of the modern techniques for the massing of fires. Much of the recent increase in Soviet field artillery results from increased organic artillery in motorized infantry regiments.

Airborne Forces

The Soviets have seven airborne divisions, all under the direct control of the Ministry of Defense. Five of these seven divisions are available for early commitment against NATO. These airborne divisions, which are probably combat ready, have about 6,000 men and 1,000 major items of equipment.

There are now as many as 975 medium transports assigned to military transport units, of which about 800 are AN-12 Cubs. Some 725 to 750 of the latter provide the main intertheater lift for theater forces and have as a main mission the support of airborne troops. These could lift assault elements of two airborne divisions for airdrop to a radius of about 950 nautical miles. Some Cubs have improved range and weight-carrying capabilities; 350 of these could lift about 5,000 paratroops with supporting equipment to a radius of about 1,500 nm, or a maximum range of 2,800 nm. In an emergency, this lift capability could be augmented by other military transport and by medium and long range aircraft in the Soviet Civil Air Fleet.

Only one East European member of the Warsaw Pact--Poland--has an airborne division. The Polish airborne division, however, is about two-thirds the size of a Soviet airborne division and the Poles must rely on Soviet military air transports to lift the entire division at one time.

Czechoslovakia has one 1,800- to 2,000-man airborne brigade subordinate to its Ministry of Defense, plus a separate Special Forces type airborne regiment subordinate to the Military Intelligence Section of the

General Staff. This regiment is intended for covert operations in enemy rear areas. Czechoslovakia has some organic airborne transports, but relies on Soviet transports to lift its entire brigade. Romania has one 1,300-man Parachute Regiment; Bulgaria and East Germany each have a single battalion of about 400 men and Hungary has an airborne training unit.

Amphibious Forces

There are currently about 14,000 men in the Soviet naval infantry, organized into brigade-size units, with two brigades located in the Baltic Fleet, two in the Black Sea Fleet, two in the Pacific Fleet, and one in the Northern Fleet. The naval infantry's missions are apparently to assist in seizing critical beachheads and to conduct diversionary operations on the seaward flank. A small force of naval infantry has been present from time to time in the Mediterranean since June 1967; they have conducted several landing exercises. The current small number of landing ships in each of the fleet areas restricts the landing force to battalion or brigade size.

Poland also has an amphibious landing force. This force of about 3,700 men consists of three regiments (two operational and one training) and one medium tank battalion, and one two-launcher FROG (free rocket over ground) section. Poland's 22 Polnocny class LSMs and 38 LCPs could transport about one regiment in an assault landing.

Missile Support

The general support tactical ballistic missile is the Scud, which is allocated to army and front echelons of organization. It is believed there are about 40 Scud brigades in the USSR and in the GSFG. In the GSFG, each army is believed to have one 9-launcher brigade. There are probably two larger brigades (up to 12 launchers) subordinate to GSFG Headquarters. Ground forces in the USSR probably have about the same level of Scud support as in the GSFG.

Soviet divisions deployed in Eastern Europe have FROG battalions probably with four launchers each. Category I and II divisions within the USSR are believed to have three FROG launchers; Category III divisions may have two launchers each.

Soviet ground commanders have long complained of the lack of a tactical missile system with the range and mobility suited to the needs of the front. The Soviets have developed a missile, the SS-12, which can meet these needs: it is estimated to be capable of carrying a 1,500-pound warhead to a range of 500 nautical miles. There is no evidence, however, that the SS-12 missile is deployed with the ground forces.

The SS-12 is believed to be carried by the Scaleboard transporter-erector-launcher. Scaleboard units are probably under the control of the Strategic Rocket Forces rather than the ground forces. It is likely, however, that Scaleboard would be used in support of theater operations if required. This is especially true in the Sino-Soviet border area, where Soviet ground forces cannot call upon the heavy missile support from medium-range ballistic missiles (MRBMs) and intermediate-range ballistic missiles (IRBMs) available in the west. There may also be some mobile Shaddock cruise-missile units which could provide additional front level support.

The Soviets have conventional high explosive warheads for Frogs and Scuds, but there is little evidence indicating the numbers of such warheads available or their tactical use. These warheads probably now include some of the high fragmentation, improved conventional munitions type. This type of warhead for FROGs and Scuds would greatly improve their effectiveness for nonnuclear operations.

Tactical Air Support and Theater Air Defense

Frontal Aviation

The mission of the Soviet Tactical Aviation--also called "Aviation of the Front"--is to support the theater/front commander. The functions of Tactical

Aviation include air superiority operations, close air support and interdiction in conjunction with ground force operations, strikes against targets of strategic importance to the front, and air defense of the theater of operations. Tactical Aviation also provides reconnaissance support and operations, and some air transportation. The air elements to perform these functions are organized into tactical air armies (TAAs), which in wartime are assigned to fronts.

The 14 identified TAAs vary greatly in size and composition. The largest is the 24th TAA, deployed in East Germany. It is estimated to have about 730 combat aircraft, 10 percent fewer than last year. This reduction is due to last year's withdrawal of Brewer-equipped light bomber units to the USSR. A new air army has probably been created in the Trans-Baikal-Mongolia area since 1966; it now contains about 310 combat aircraft. The other air armies in the Far East have been strengthened also. The additional aircraft were drawn primarily from reserves.

Tactical Aviation is now composed largely of fighter aircraft. It is estimated that there now are about 1,600 fighters in regiments whose primary mission is air defense and 1,100 in regiments whose primary mission is ground attack. In addition, there are about 390 light bombers in strike units and about 600 fighter and light bomber types in reconnaissance and strike reconnaissance units.

There are in addition 200 to 300 older model tactical aircraft collocated at Tactical Aviation bases. There is some evidence indicating that ground attack regiments have 48 fighters instead of the 36 currently estimated. If so, this would indicate that about half of the collocated aircraft are in fact assigned to Tactical Aviation. The Soviets continue to maintain a reserve of older aircraft which has been used to equip new Tactical Aviation units along the Sino-Soviet border and for deliveries to other nations, particularly the Arab states. Some of these aircraft are believed to have gone to the Soviet air training establishment, which has been substantially increased.

Ground Attack

There are about 1,500 fighters and light bombers in Tactical Aviation whose primary function is to perform close air support, air strike, and interdiction missions. The capabilities of this force were improved in recent years through reequipping of fighter units with the SU-7 Fitter and light bomber units with the YAK-28 Brewer. However, this reequipment program ceased a year or so ago, leaving over half the ground attack/tactical strike force still equipped with the obsolescent MIG-17 Frescos and IL-28 Beagles.

Both the Fresco and the Fitter were designed as interceptors. Their performance in ground attack roles is characterized by short combat radii and small payloads. Their design and rugged construction, however, make them well suited for operations from unimproved or improvised airfields. Soviet tactical air doctrine indicates that ground attack fighters would be rather widely dispersed on unimproved fields and suitable highway sections 70 to 100 kilometers behind the front lines. Bomber and reconnaissance regiments would apparently be deployed 200 to 300 kilometers behind the front lines.

The Soviet nuclear stockpile includes bombs for delivery by tactical aircraft. Soviet Tactical Aviation can deliver nuclear bombs with both fighters and light bombers. Ground attack fighter regiments are trained in sophisticated bombing techniques. The Soviets also have toxic chemical bombs available for tactical use and some aircrews specially trained for their delievery. There is no evidence of Soviet use of tactical aircraft for spray dissemination of chemical warfare (CW) agents, but a capability to employ this technique cannot be ruled out. The Soviets have a variety of conventional munitions for delivery by Tactical Aviation, including bombs weighing 550, 1,100, and 2,200 pounds.

Judged in the light of equipment, training, and normal operations, East European air forces are largely for national air defense. Of about 2,500 combat aircraft, almost all are interceptors. The proportion of

new model aircraft in East European air forces has increased from one-quarter last year to one-third now through the delivery of new fighters. Almost all aircraft delivered to the East Europeans during the past two years have been all-weather MIG-21 Fishbed interceptors.

Czechoslovakia, Poland, and Bulgaria have ground attack air regiments, but only the Czechs have a significant number of new model ground attack fighters (SU-7). The Poles have mostly older models in ground attack roles. The Bulgarians have two regiments of MIG-17s. All East European fighter regiments, however, are cross-trained, probably to about the same extent as Soviet tactical air units.

Transport Aviation and Helicopters

Soviet Tactical Aviation units provide light troop transport and utility support to the ground forces with about 250 light and medium transports such as Cab, Crate, and Camp and about 850 helicopters, primarily Hound and Hook. Most of the TAAs have one or more regiments equipped with helicopters. Over half the regiments have 10 to 15 heavy and 25 to 30 medium helicopters.

The Soviets continue to demonstrate a growing appreciation for the tactical employment of armed helicopters, but there is no evidence that they have developed a helicopter intended specifically for armed missions. Light and medium helicopters have been observed armed with a variety of weapons such as machine guns, rockets, and antitank guided missiles.

Air Defense

Soviet theater force air defenses in Eastern Europe are coordinated with the national air defenses of the other Warsaw Pact countries and with the air defenses of the USSR. Air defenses of all theater forces would probably act in accordance with the general plans of the Soviet Commander of Air Defense until those forces were committed to ground operations. At that time, control would probably be maintained by the Deputies for Air Defense of the major force commanders.

During the past year, the Soviets have continued to exhibit major concern for improving their air defense posture in the forward area, particularly against low-altitude attack. The Soviets have approximately 60 radar stations in Eastern Europe, and are continuing to deploy the tower-mounted Squat Eye radar at those stations. This radar, first observed in 1966, is improving the low-altitude surveillance and tracking capability down to 200 to 300 feet. It is possible that where the terrain is suitable this capability is better--perhaps as low as 100 feet. Since 1968 a track-mounted air surveillance radar, Long Track, has also been deployed in Eastern Europe at Soviet radar stations. Data transmission systems for rapid reporting of tracking information and for ground control of interceptors have probably been widely deployed with Soviet forces in Eastern Europe.

There are about 350 East European radar stations. These stations are equipped with the same types of radars employed by Soviet forces. Each nation operates its own air warning and control system. It is not known how warning and control information is coordinated among the several East European systems and those of the Soviet theater forces, but such coordination almost certainly exists.

Since 1960 the Soviets have made a substantial qualitative improvement in the air defense elements of Tactical Aviation. Most of the aircraft delivered to the force in recent years have been late model, all-weather MIG-21 Fishbeds, which now constitute more than 85 percent of the aircraft in air defense regiments. The Fishbed, a lightweight, ruggedly designed, Mach 2 all-weather interceptor, can also perform the air superiority mission. This aircraft has operated for sustained periods from unimproved airfields. It has been produced in eight, possibly nine, variants. The latest variant, identified in East Germany, has improved payload capabilities and improved air intercept radar.

As in the case of tactical air support aircraft, Soviet tactical air defense fighters can theoretically sustain a flying rate of four or five sorties per day.

The principal constraint on sortie rates is pilot fatigue and logistic support. The pilot-to-aircraft ratio in air defense regiments is about 1.5 to 1; the logistic support at permanent improved airfields could support a sortie rate of 4 to 5 per day for at least a few days. Soviet tactical air defense aircraft were designed to operate under the austere conditions of a battlefield environment. The sortie rates of units operating from unimproved airfields would probably be low.

Soviet forces in Eastern Europe have about 40 SA-2 surface-to-air missile battalions. An SA-2 regiment, which usually consists of three battalions, is deployed with the Groups of Soviet Forces in Poland, Hungary, and probably Czechoslovakia. In East Germany there are 10 SA-2 regiments deployed for defense of GSFG. In the USSR, there are probably 45 to 65 additional SA-2 battalions manned by air defense troops of the ground forces. The SA-2 system deployed with theater forces has a capability to intercept targets

It is used primarily for defense of relatively static rear area installations, as it is not mobile enough to provide continuous support to maneuvering troops.

The SA-3 has been deployed in East Europe to provide low altitude point defense of Soviet tactical airfields in East Germany, Poland, and Hungary. Under favorable conditions, including optimum acquisition, this system can intercept aircraft at about 500 feet at a range of 2 to 7 nm. Depending on the conditions of weather, site masking, elevation of the fire control radar, speed and reflective area of the target, the minimum altitude could be as low as 300 feet at ranges of 2 to 4 nm.

The Soviets are now deploying the track-mounted SA-4 system into the theater forces. The SA-4 has been identified at training sites in East Germany. The SA-4 has a range of 25 to 30 nm and is believed to be able to engage targets down to about 2,000 feet at shorter ranges.

The Soviets rely heavily on light antiaircraft artillery (AAA) for air defense of ground forces.

They have introduced a new radar-controlled, quad-mounted 23mm weapon, which is carried on a tracked chassis that also mounts the AAA fire control radar Gun Dish. Both the Gun Dish and the Flap Wheel (used with 57mm and lower caliber) operate in the X band. The older Fire Can radar is also still in use with AAA guns.

In addition to the improvement of their active defenses, the Soviets have, since mid-1967, engaged in a program to improve the survivability of their forces, especially in Eastern Europe. Revetments and/or hard shelters have been constructed at Soviet radar, command and control, ground and air installations to protect those resources. Camouflaging has been identified at radar sites and airfields.

The Soviets have the capability to jam airborne radar bombsights and to screen headquarters facilities, troop concentrations, and other critical targets in conjunction with air defense weapons systems operations in the field.

Electronic counter-countermeasures (ECCM) capabilities probably have been incorporated into the Gun Dish and Flap Wheel AAA radars.

Use of electronic countermeasures (ECM) by the Soviets to protect their tactical aircraft has been of rather limited nature. Generally they use specially fitted ECM aircraft for protection of tactical strike light bombers against enemy ground-based radar and weapons; active noise jammers and chaff, including the rocket-fired variety constitute the bulk of their ECM equipment. The strike aircraft have ECM equipment designed to defend against enemy fighters. This equipment includes an AI radar threat-warning system and chaff dispensers, and possibly jammers. Ground attack fighters may have cannon shell chaff for use against ground-based fire control radars.

Service Support of Theater Forces

The Soviet system of supply and maintenance support was designed to support theater forces in the context

of a brief nuclear war. Mobile stocks of conventional ammunition and fuel at division and army level are adequate for about five days of combat. Little is known of the availability of supplies at front level. The Soviet resupply system down to front level remains heavily dependent on the railways. The Soviet maintenance system is apparently based in large part on minimum peacetime use of essential items of equipment. This equipment is retained as much as possible in covered storage, with wheeled vehicles often up on blocks, combat loaded. Unit maintenance organizations at all levels are small. The Soviet system would probably be adequate for a brief nuclear war, but it appears less well suited for major conventional operations of long duration.

The rear services of the front are responsible for the resupply of tactical air armies as well as the ground armies. Supply levels at permanent bases of TAAs are probably adequate to support sustained combat by air units for about the same duration as is the case with ground armies--i.e. about five days. Resupply after this period would be restricted somewhat by the limited availability of transport, particularly fuel trucks and pipeline equipment, at both front and air army levels. The extensive logistical support system which would be required for sustained air operations from dispersed unimproved airfields does not appear to be available in Soviet forces in East Germany.

The general austerity of rear service support has been sharply criticized by Soviet logisticians over the past several years, and some efforts have been made to remedy the situation. The fuel supply system has been improved through the introduction of collapsible portable storage tanks and pipeline units. The carrying capacity of general purpose transport has been increased through the introduction of new heavy duty trucks with four-wheeled trailers. The logistics load on the railroads has been reduced somewhat by the introduction of tank transporters, and by the expansion of the capabilities of transport aviation.

Naval Forces

In recent years the Soviets have made increasing use of naval forces for political ends, most notably in the Mediterranean. With its growing capabilities for long-range operations, the Soviet Navy will be more in evidence in support of specific political objectives in areas vital to NATO interests. In addition, Soviet naval units act as a force in being capable of reacting to Western naval forces.

The Soviet concept of general war requires flank support for land forces in Europe, and probably for the seizure of the Black Sea and Baltic Sea exits.

To fulfill naval responsibilities in the defense of the Soviet homeland, the Soviet Navy has a strong capability in the immediate offshore areas, and is gradually extending the distance at which it can effectively conduct operations. By fitting surface-to-air missiles in its larger ships it has enhanced its capability to operate beyond the range of shore based air cover.

The Soviets are deeply concerned with the threat posed by Western carrier strike forces, and are striving to improve their capabilities in this area by improving their early warning and reconnaissance capabilities and by introducing new sophisticated weapons systems in submarines and surface units. In the Mediterranean, where US carriers are deployed so as to be continually within strike range of the USSR, Soviet policy is to maintain missile armed submarines and/or surface ships within missile range of the US ships.

The Soviets are not now capable of countering the threat posed by NATO ballistic missile submarines. However, they are placing considerable emphasis on antisubmarine warfare.

Soviet capabilities against NATO sea lines of communications are greatest in the Northeast Atlantic and the Mediterranean and the primary threat to these lines is posed by the Soviet submarine force. It is

estimated that approximately one-third of the torpedo attack and cruise missile submarines in the Northern Fleet, could be maintained continuously on station, although more could be at sea at any one time.

While the new Soviet ballistic missile submarines of the Y class will be targeted against the US, older classes of ballistic missile submarines will probably be assigned targets in Western Europe. In addition, cruise missile submarines could attack land targets in Western Europe, although their primary wartime mission is to seek out and destroy Western naval forces.

East German and Polish naval capabilities continue to improve with the acquisition of more modern equipment and the broadening of operational experience, while those of Romania and Bulgaria have lagged behind the other Warsaw Pact countries. Warsaw Pact interfleet coordination has increased, and East European navies are playing a greater role in Pact naval operations.

Mediterranean Sea

Since 1964 the Soviets have maintained naval vessels in the Mediterranean. However, lacking adequate air cover, the Soviet squadron is not capable of conducting extended operations against the Western navies. At the outset of hostilities, the Soviets would attempt to destroy Western carrier striking forces, and seal off the Mediterranean from naval reinforcement. Should the Soviets succeed in providing air cover, they could attempt to seal off the southeastern Mediterranean basin.

Baltic Sea

Baltic Warsaw Pact naval forces, in particular the numerous guided missile patrol boats and the amphibious forces, pose a threat to NATO control of the Baltic Sea outlets, and are capable of offensive operations against NATO forces.

Black Sea

Soviet, Romanian, and Bulgarian naval forces are capable of supporting land operations against the

Turkish Straits and of conducting small-scale amphibious landings and other operations against the Turkish Black Sea coast.

Theater Forces Facing NATO

Soviet theater force strength in Europe is concentrated opposite the Central Region of NATO. In East Germany, Czechoslovakia, and Poland, the Soviets maintain 27 combat-ready divisions and about 1,100 combat aircraft. The East Germans, Poles, and Czechs can provide an additional 25 full strength divisions within a day or so of a mobilization order and 1,750 combat aircraft immediately.

The Soviets apparently consider remote the likelihood of a sudden outbreak of hostilities requiring the Warsaw Pact to fight without reinforcement. They base their planning on the assumption of a period of pre-hostilities tension and mobilization on both sides, and maintain a large number of divisions in the border MDs of the USSR which can be mobilized and readied to move westward quickly. The East Europeans model their mobilization system after the Soviet example.

We have good evidence from documents and defectors about Warsaw Pact goals for the scope and speed of reinforcement in Central Europe. According to this evidence, the Warsaw Pact would seek to confront NATO with a large force at the outset of hostilities. We have no direct evidence as to the total size of such a force, but on the basis of availability of forces we believe it would probably consist of 80 to 90 divisions organized into 20 or more armies and five fronts. A major Warsaw Pact goal has been to be able to assemble such a force and have it prepared for combat in about two weeks after a mobilization order. The Soviets and some of their East European allies have vigorously attempted to achieve this goal despite limitations on resources available and the political struggles in Eastern Europe. By early 1968 they had come close to reaching that goal.

Prior to the Czechoslovakian crisis of 1968, Warsaw Pact planning probably called for the deploy-

ment of three key first echelon fronts opposite NATO in a matter of a few days. These fronts would have contained 22 Soviet and 26 East European combat-ready divisions. The central front (the main effort) consisting of GSFG and some East German formations would have been complete. The northern and southern fronts composed primarily of Polish and Czech forces would have lagged behind the central front in the readiness of army and front level support because of the requirement for mobilization. Within about 10 days, up to 30 additional divisions drawn from the USSR could have been assembled with minimum essential army and front level support in eastern Poland and Czechoslovakia. These forces would have constituted the two fronts of a second strategic echelon. Tactical air reinforcement from the western USSR would require little if any mobilization, and could be deployed into Eastern Europe within a matter of hours.

The situation which has evolved since the invasion of Czechoslovakia has probably altered Warsaw Pact reinforcement planning with respect to the Czech front. For the near term, the Soviets probably do not count on the Czechs to form an effective and reliable front, although they have not disposed their divisions to take over Czech positions opposite NATO. The Soviet forces in Czechoslovakia--called the Central Group of Forces (CGF)--are not large enough to constitute a front; in particular, army and front level support is minimal and combat air support consists of only about 85 fighters. In a sudden military confrontation with NATO the Soviets would have to rely on the Czechs backed up by the CGF. If the Soviets were to anticipate a serious military confrontation with NATO they would probably expedite the forward movement of the front from the Carpathian MD to reinforce or take over the southern sector.

In current circumstances, and with speed the primary requirement, the Warsaw Pact could in about two weeks assemble the key combat elements of five fronts (including the Czechs) opposing NATO--three in the first echelon and two in the second. The complete integration of divisions into effective armies and fronts would require more time. In a situation where offensive capability against NATO

(rather than maximum speed) was the prime consideration, the Soviets would almost certainly take at least three weeks to complete mobilization and forward deployment to concentration areas in Eastern Europe.

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 could participate in combat operations within two weeks after mobilization is ordered.

This plan shifts part of the burden of maintaining large combat-ready forces from the USSR to Poland and Czechoslovakia. Of greater importance, the establishment of a combat-ready Warsaw Pact force in the forward area partially resolves the problem 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 in the War Plan

In Warsaw Pact exercises which have rehearsed the war plan, the Pact's actions always appear to be reactions to either an outright attack by NATO forces or to some other NATO military actions which appear to presage a NATO attack. The exercise scenarios usually allow for a brief defensive phase during which the Pact completes mobilization and reinforcement, after which the Pact seizes the initiative and launches an offensive.

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 so large a proportion of the striking force. They would almost 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 incorporate substantial Soviet combat elements into both the Czechoslovak and Polish fronts, and would probably impose direct Soviet command and control over all fronts. Even if hostilities did not begin before the Soviet reinforcement was completed, however, they would probably keep many of the East European forces in the first echelon while retaining a large Soviet second echelon. This would tend to ensure East European commitment to the war since the bulk of Polish, East German, and Czechoslovak forces would be engaged while Soviet contingents were behind them.

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 preemptive NATO attack in which--if nuclear weapons were employed--forward deployment would be severely hampered.

The war plan outlined on pages 14 through 19, with minor variations, is the only one practiced in Warsaw Pact exercises. If a plan for initiating an unprovoked attack exists, it would probably not be rehearsed overtly. Major variations in the operational use of forces--particularly variations emphasizing the maximum initial use of Soviet forces--might appear in an exercise with a disguised aggression scenario. This has apparently not happened in any of the exercises so far.

Mobilization

The Soviet conscription and reserve system provides more than adequate total numbers of relatively young reservists to flesh out all divisions. However, in the interests of speed of mobilization, the combat units draw their reservists from the civilian population in the immediate vicinity of their peacetime

garrisons. These reservists are designated by name by the voyenkomats (local military committees). As a result, quickly mobilized Soviet units would probably contain some enlisted reservists in older age groups.

The Soviet reserve system calls for frequent mobilization exercises and periods of active duty for reservists. If the practice in one Category I division is typical, however, it appears that such exercises are infrequent and reservist training probably consists of lectures to reserve officers. There is some evidence that lessons learned from mobilization for the invasion of Czechoslovakia have prompted new emphasis on practice mobilization and reserve training.

The Soviet mobilization system can probably flesh out all divisions except Category III within a few days of a mobilization order and have them ready to move. In situations where speed of reinforcement is the overriding factor, mobilized divisions would be deployed regardless of their equipment status.

The Soviets rely on a well organized system for mobilizing civilian motor transport to offset the shortage of general purpose trucks in the ground forces. Portions of Soviet city motor pools are earmarked for military use. Trucks and buses manned by reservists are formed into military transport columns which report to nearby divisions upon mobilization, where they are reassigned to various units. Most of these trucks probably serve as logistic support vehicles, but some are used in place of APCs. Army and front level truck transport units are probably mobilized similarly. The biggest drawback to this system is that, on the whole, the mobilized trucks are not well suited for military use, particularly with regard to off-road mobility.

The Soviets also plan to draw directly from the civilian economy other types of supporting units, e.g., engineer construction, railroad, signal, and medical units. They apparently do not count on quick mobilization of new units requiring a high degree of specialized military training, such as Tactical Aviation and missile units, although there is probably a fairly large pool of trained personnel to serve as fillers and replacements for standing units.

III. Contingencies Leading to NATO - Warsaw Pact Hostilities

This section discusses contingencies in which NATO - Warsaw Pact hostilities might arise, their relative likelihood, and various actions the Pact could undertake on its own initiative.

Factors Inhibiting Soviet Initiation of Hostilities

In the mind of the Communist leadership, the preservation of the Soviet state enjoys a priority far exceeding all other interests. During the post-Stalin period, the successive leaderships have given every indication of a belief that, in the nuclear age, general war would pose the gravest risks to this objective.

This is not to say that Soviet policy has not been aggressive during this period, or that the USSR has not sought to use the weight of its military power to alter the status quo in its favor. But the USSR has periodically been aggressive, not in the military risks which it was willing to run, but rather in its probing to calculate exactly what military risks would be involved in any contemplated advance. In West Berlin, despite Khrushchev's repeated professions of disbelief that the US would go to war over the city's fate, the USSR eventually backed off from its ultimatum without putting this proposition to the test. In the Cuban missile crisis, he retreated when he discovered that he had miscalculated and that holding to his intended course would involve appreciable military risks. During the six-day Arab-Israeli war of 1967, the USSR was careful to avoid military risks.

Barring the advent of a highly irrational leadership--and unless the USSR comes to underestimate the determination of the US to defend its interests--this pattern of behavior will probably continue. This presumes a continuation of an East-West strategic relationship which denies Moscow the certainty that the USSR could escape unacceptable damage in

general war. It also presumes that situations will not develop which appear to the Soviet leaders to present grave external threats to their system.

The China Factor

Sino-Soviet hostility is an additional factor which tends to reduce the likelihood of Soviet deliberate attack or of Soviet escalation of conflicts which might arise by accident. Moscow is highly sensitive to the possibility of Chinese pressures in general and to Chinese exploitation of Soviet troubles in Europe or, particularly, in relations with the US.

Reliable intelligence information indicates the Soviet leaders concluded in mid-1969 that, in view of the Chinese problem, it would be best for them to take a cautious approach in dealing with the US and to avoid an increase in tensions in Europe. While the degree of Sino-Soviet hostility may fluctuate over the coming decade, a substantial and durable improvement is unlikely. Indeed, Soviet distrust of China will probably deepen as the Chinese acquire nuclear delivery capabilities against the USSR.

The USSR now has about 30 divisions deployed in the military districts bordering China, and some of these could be moved westward to meet contingencies involving NATO. Given the distances involved, however, and the availability of low-strength divisions in the western USSR which could be mobilized--plus what the USSR would probably see as an increase, during a period of European tension or combat, in the dangers from China against which these forces are intended to guard--the Soviets probably would not make such redeployments. Air units might be transferred at some stage, particularly if combat in the West turned out to be both intense and prolonged. Similarly, unless the USSR faced prolonged ground combat with China, it would not reduce its forces earmarked for the Central Front for the purpose of reinforcing against China.

The Mediterranean - Middle East Region

In recent years, the Soviets have expanded their influence in the Mediterranean - Middle East region. However, the USSR's concerns there are less important than its vital interests in Eastern Europe, its dispute with China, and its basic relations with the West. The Soviet leaders wish to avoid a serious confrontation with the West and probably consider that preserving their position in the Mediterranean - Middle East region would not be worth the serious risk of nuclear war.

Possible Contingencies

The following contingencies are highly unlikely to arise primarily for the reasons discussed above. The ones which have the most plausibility are those arising in circumstances which are not under complete Soviet control.

Eastern Europe

Postwar Soviet behavior has made it clear that the USSR is willing to use military force against serious threats to its position in the Communist states of Eastern Europe, as was reflected in the so-called "Brezhnev doctrine." One way, therefore, in which hostilities between Warsaw Pact and NATO forces could arise is as a spillover from large-scale revolts in Eastern Europe. Large-scale revolts are defined as uprisings which are sustained for at least a week, an assumption which requires that the local East European armed forces either stand aside or actually participate against Soviet forces. The force of nationalism in the area, the vicissitudes to which Communist parties are subject, and the capacity of the Soviet leaders for mismanagement are such that revolts of this kind in one or several East European countries must be considered among the possibilities of the Seventies.

At the outset the USSR would make every effort to confine the fighting within the country or countries involved, and NATO presumably would avoid intervention.

But if those East Europeans opposing the Soviets came to believe that their only chance of victory lay in involving the West in the fighting, they would try to provoke an expansion of the conflict--even though Western nonintervention in previous instances, for example East Germany in 1953, Hungary in 1956, and Czechoslovakia in 1968, would argue against this tactic. The chance of expansion would be greatest if the fighting were centered in East Germany, which would tempt West German intervention. Further analysis, therefore, is confined to this case.

This contingency might arise suddenly, catching the USSR unprepared. It is more likely, however, to be the culmination of a period of ferment and tension. This could give the USSR time, if it chose, to mobilize the forces assigned to the Central Region in war planning.

In the contingency of large-scale revolt which, among other things, found the East German army standing aside or opposing Soviet forces--the contingency most likely to spill over into the West--some members of the Working Group believe that the other East European forces in the Central Region could probably become almost totally unreliable for use against NATO. Other members feel that in certain cases these forces would be reliable--for example, Polish forces in contingencies which raised the specter of East Germany's reunification with West Germany.

The size of the force--out of the total of 53 Soviet and 33 East European divisions earmarked for the Central Region*--which would be available for use against NATO in these circumstances would depend not only upon the reliability of the East Europeans, but also on such unpredictable factors as the scale of the revolt, the degree of real or threatened opposition being offered by the East European forces,

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** This does not include the USSR's strategic reserve of 16 divisions and the forces in Hungary (6 Hungarian and 4 Soviet divisions).*

the usability of Polish and Czechoslovak territory for reinforcement from the western USSR, and the degree of prior Soviet mobilization.

Miscalculation of Effects of Tension in Berlin

Berlin has been frequently harassed during the entire post-blockade period without any serious miscalculation occurring, a fact which strongly argues that the USSR has devised elaborate procedures comparable to those of the West to maintain constant and close control over these matters. These procedures are probably sufficient to check unintended escalation. Nevertheless, it remains possible that major combat could develop in an unintended fashion over Berlin (the case of a deliberate Communist takeover of West Berlin is considered on page 64).

Although such a contingency might develop slowly, providing considerable time for mobilization, it is not certain that the USSR would mobilize. By definition, it would not be expecting hostilities, and it could count on its overwhelming local superiority in the Berlin area in case of miscalculation. Mobilization might be forgone, therefore, on the grounds that it would needlessly raise tensions and provoke NATO mobilization. Thus a war arising from miscalculation over Berlin might find the Central Region of the Warsaw Pact fully mobilized, partially mobilized, or not mobilized.*

At the outset, the Soviets would probably try to keep the conflict limited. So long as they did so, they probably would not employ any East European forces except those of East Germany. We expect that the East German forces would be reliable at the outset; their ultimate reliability would depend on the course of the battle and, in particular, on whether they engaged West German forces.

* *That is, anywhere between the present strength of about 50 combat-ready divisions and the mobilized strength of about 85 divisions.*

The Mediterranean - Middle East Region

The relationship of this area, and particularly the Middle East, to the defense of NATO is complex and not completely defined. If the Arab-Israeli conflict escalated and came to involve the US and the USSR, this would not be, strictly speaking, a NATO matter (although the outcome could have significant implications for NATO). But such a great-power involvement might include naval hostilities in the Mediterranean, and this would tend to engage NATO, even though certain of the European members would resist this tendency.

Both the US and the USSR are deeply involved in the Middle East and specifically in the Arab-Israeli dispute. Each operates naval forces in the eastern Mediterranean where, unlike areas ashore, there is no demarcation line tending to maintain the separation of forces. Should large-scale Arab-Israeli hostilities be renewed, and if they were more prolonged than on previous occasions, both the US and the USSR might find themselves drawn into a situation which--similar to that which could result from large-scale revolt in Eastern Europe or a miscalculation over Berlin--would not be under their full control. Thus military situations involving the US and the Soviets could arise out of existing conditions in the Mediterranean and represent plausible contingencies.

In the case of struggle or imminent hostilities between rival Arab groups, Moscow might try to move in troops, perhaps in an effort to preempt Western intervention. At present the Soviets have a limited capability for rapid intervention. The estimated 300 to 500 naval infantry troops with the Mediterranean Squadron could make a token landing against little or light opposition (but not against the defense the Israelis could muster). The Soviets could move in a larger force rapidly by air from the USSR, but this would entail problems of overflight and air cover.

The Soviet leaders would be reluctant to commit their armed forces for such operations in the Mediterranean area. Coups in the Middle East normally

happen too fast for intervention by outside powers to be decisive. Further, the Soviets do not desire to entangle themselves in inter-Arab strife, particularly if they might end up on the losing side. However, the presence of even an inferior Soviet force could inhibit Western freedom of action in such situations.

Although there may be intermittent acts of violence occurring in Cyprus, it is highly unlikely that such violence would cause the Soviets to intervene with military air or naval forces. The continuation of the communal talks, the desire of both communities for peace, the bilateral efforts of Greece and Turkey to improve their relations, plus the efforts of NATO and the UN seem to be mitigating factors to any contingency that might be exploited by the Soviets, especially through their use of airborne or naval forces.

If the talks for any reason are broken off, or if they end in a clear failure leaving an unsettled situation, it is foreseeable that pressures could develop on both sides in favor of a new attempt to impose a solution unilaterally. Such an attempt would revive the danger of a Greek-Turkish war. A problem might then be created for NATO and others and possibly set the stage for exploitation by the Soviets. In such circumstances, while the Soviets would attempt to influence the outcome of the event, they are not likely to push to the point of a probable or inevitable confrontation with the West.

All-Out Attack in the Central Region

In Part I of this report we describe how the Soviets plan to prepare for war in the Central Region and review Soviet expectations of a period of tension during which mobilization would occur. This plan calls for the assembly of three forward fronts and two reinforcing fronts which would contain about 1,290,000 men (60 percent of them Soviet), 20,000 tanks, 6,200 conventional artillery pieces, 3,700 combat aircraft, and some 500 nuclear-capable tactical missile and rocket launchers. Under this plan, options for conventional and nuclear fighting are available.

The Soviets have never undertaken full mobilization in peacetime, and they recognize that it would be costly, would raise tensions, and might set in motion a train of actions and reactions which could increase the risks of miscalculation. Nevertheless, it is possible that they might undertake it at some future time if they thought that, in this way, they could force political concessions from the West without actually going to war. If in these circumstances miscalculation did propel the two alliances into conflict, and if no way were found to terminate hostilities quickly, the Warsaw Pact plan for the conduct of the war probably would be that described above; any mobilization and reinforcement not completed by this time would be rushed to completion.

The Case of Nuclear Preemption

Because general nuclear war is highly unlikely to occur as the result of deliberate, preplanned Soviet initiative, Soviet nuclear preemption against Europe is not plausible unless it is part of an escalatory situation in which survival of the Soviet Union is at stake. In the circumstances of mutual mobilization amid rising tensions, however, the USSR might become uncertain about whether NATO was about to go to war. This could lead the Soviet leaders to consider the option of a nuclear preemptive attack designed to gain the advantages of a first strike.

Soviet "preemption" in this report is defined as an attack undertaken because of a belief that an enemy attack threatening the existence of the USSR has become imminent and certain. If the Soviets came to this belief, they would have to consider whether to strike at European NATO alone or at the US as well. Including the US in the attack would reduce the weight of retaliation, but the USSR could have no hope that it would escape retaliation altogether. It might see a hope that nuclear preemption against European NATO alone would not inevitably bring on full retaliation against the Soviet homeland.

If the Soviet leaders acted on this calculation, the forces available for a preemptive nuclear attack

include, besides those described above, 630 strategic missile launchers in the western USSR, almost 600 medium bombers deployed at Long Range Air Force bases in this region, and 16 diesel ballistic missile submarines (46 launchers) in the Soviet Northern Fleet.

Surprise Attack With Limited Objectives

Using forces in being, and avoiding any preceding period of tension, the Warsaw Pact could stage a surprise conventional attack in the Central Region. This could be aimed at occupying a part or all of West Germany. A small amount of mobilization, limited to that which the Soviets felt confident would not be detected by NATO, might precede such an attack. By definition, there would be no warning.

Such attacks in the Central Region would be plausible only in special circumstances, quite different from those which presently obtain. If the Soviet leaders were convinced that the US nuclear guarantee had been so deeply eroded that the risks of immediate or eventual nuclear war were negligible, and if they believed that NATO had become so demoralized that a shock of this kind would complete the disintegration of the alliance, they might undertake this course of action. Even in these circumstances, however, they might equally well forbear on the grounds that political evolution in Western Europe was already proceeding rapidly in a direction highly favorable to their interests.

If they undertook such an attack, the Soviets would probably not include East German forces among the invaders, out of concern that pre-attack secrecy might be compromised and that the East Germans might prove unreliable in an offensive role against West Germany.

If the attack were aimed at overrunning only the northern part of West Germany, the USSR would have to limit the size of the attacking force in order to avoid troop movements which might compromise secrecy and to maintain a strong posture against possible NATO reactions. Probably the Soviets would not commit

more than half of the 20 divisions in GSFG to an attack limited in this fashion.

Capture of West Berlin

Drawing upon its forces already in East Germany, the USSR could overrun West Berlin. Moving with appropriate stealth, the Soviets could enjoy all of the advantages of surprise in such an action.

Moscow has long had this capability but has never chosen to exercise it. Indeed, occupation of West Berlin has not been a goal of Soviet Berlin policy. Rather than run the risks of war which taking West Berlin would entail, the Soviets have preferred to experiment from time to time with varying degrees of pressure in an effort to divide the Federal Republic of Germany and the three Western Allies. The Soviets found in pressure and harassment--and the threat of a separate peace treaty which would turn control of access over to the East German regime--vehicles for playing upon Berlin's vulnerabilities in a manner which allowed for maximum control over the potential risks involved.

For the present, the Soviets evidently believe that refraining from pressure on Berlin--in particular on Allied access--avoids the kind of challenge to which a unifying Western response would be likely. The Soviets might at some time in the future return to pressure tactics on Berlin--indeed, the incidents of delay of convoys in 1963 illustrated how, even in a period of detente, a minor access crisis could develop rapidly. But it seems unlikely that, in the absence of wider hostilities, the calculus of the undesirability of direct military action to take West Berlin would change.

Invasion of Yugoslavia

A Warsaw Pact invasion of Yugoslavia would probably produce early successes in the northern plains and prolonged guerrilla-type warfare in the mountainous regions. NATO might become involved.

Such an invasion is highly unlikely at present but might become conceivable under the following circumstances: Yugoslav revisionism proves so attractive as to cause serious strains in Eastern Europe; Tito's death produces deep internal divisions; the Soviets believe that significant Yugoslavian military and political elements would collaborate with them; or the Soviets are confident NATO will not intervene.

The chances of detecting at least some of the Soviet preparations appear good. The attack probably would be preceded by a period of overt political tension. Mobilization of the necessary forces and their deployment to the Yugoslav border would probably extend over several weeks. Movement into the Mediterranean of the additional naval forces needed to impose an effective blockade of the Yugoslav coast would be detected. It would be in the Yugoslav interest to pass to the US indications of impending attack. While preparations would thus be evident, it is doubtful that precise Soviet intentions or timing would be known in advance.

For the initial phase, the Soviets, with Bulgarian and Hungarian participation, would probably employ some six or eight armies containing 25 to 30 divisions and 300,000 to 400,000 men. To assemble this force, some Soviet forces normally earmarked for commitment to the Central Region would have to be shifted southward in numbers which would weaken Soviet reinforcement capabilities opposite NATO.

The NATO Extremities

In northern Norway, Thrace, and eastern Turkey the borders are well defined, and large military units are not positioned directly on the borders. Serious incidents suggesting a potential for accidental war have not occurred in recent years, and in all three locales accidental war appears to be a highly unlikely contingency.

Opposite northern Norway, the Soviets maintain one combat-ready division and could mobilize two

more within about five days. Opposite eastern Turkey is the Transcaucasus Military District, which contains two combat-ready divisions and an additional seven divisions which could be brought up to strength within about five days. Against Thrace is the Bulgarian army, containing five motorized rifle divisions, five tank brigades, and three training units; the Odessa Military District, which would provide reinforcements, contains four divisions which could be brought up to strength in about ten days. Further substantial reinforcement of any of these potential theaters, without at the same time weakening Warsaw Pact capabilities in the Central Region, would require the mobilization of low-strength Category III divisions from interior military districts of the USSR. Some members of the Working Group believe that the forces in the Moscow and Kiyev military districts--one Category I and 15 Category II divisions--would be available for these contingencies, while other members believe that the USSR would judge it necessary, in these circumstances, to retain them for possible use in the Central Region.

For substantially the same reasons as apply to the case of limited surprise attack in the Central Region, deliberate Warsaw Pact attacks in these areas, in the absence of hostilities in the Central Region, appear to be highly unlikely contingencies. The USSR would recognize that such attacks could set in motion a train of events which would seriously increase the chances of nuclear war. The advantages of conquering eastern Turkey are, from the Soviet standpoint, obscure and probably not worth much, if any, increase in risks. Northern Norway and Thrace have strategic importance, but for this very reason the risks incurred by an invasion in these areas would be even higher.

IV. Warsaw Pact Reactions to Alternative NATO Postures and Strategies

This section discusses the possible reactions of Soviet military planners to various assumptions about US and NATO force structures and strategies and postulates the ways the USSR might alter its military forces in response to NATO changes.

Factors Bearing on Soviet Planning for Theater Forces*

A number of factors shape Soviet planning of Warsaw Pact theater forces, which are an integrated set of strategic and general purpose forces.

-- Pact forces as a whole are intended to be capable of defending the area against NATO forces.

-- They are also intended to bring to a favorable conclusion, if possible, any military conflict which may occur.

-- Soviet forces in particular are also intended to maintain the Soviet political hold on the other states in the alliance.

-- By virtue of the military threat which they pose, these forces are intended to support the expansion of Soviet political influence in Western Europe.

-- Economic constraints limit the size of Soviet theater forces opposite NATO, which must compete for resources not only with civilian needs, but with other military requirements such as strategic forces and the buildup in the Far East.

**Because the USSR is dominant in the Warsaw Pact, overall Pact planning is discussed in terms of Soviet calculations and decisions.*

-- Soviet policy toward these forces has long been marked by prudence, caution, and bureaucratic resistance to change.

The military factors are discussed at length in Parts I and II of this report. This section considers the other factors in Soviet military planning.

The Political Factor

The pressure exerted on Western Europe by the weight of Warsaw Pact forces is a gross pressure. Defense ministries in the NATO countries are concerned with particular aspects of Warsaw Pact capabilities and vulnerabilities, but these have no real effect on the overall political pressure which these forces exert in Western Europe by virtue, not only of their size, but of the reminders furnished by periodic exercises. With hundreds of strategic nuclear missiles deployed against them, Western Europeans are not likely to become more or less resistant to Soviet demands in response to changes in such matters as ground force equipment or reorganizations of divisional structure on the enemy side.

On the other hand, the Soviets do have the option of making large-scale unilateral withdrawals in their forces in Eastern Europe as part of a vigorous effort to promote detente. This tactic might commend itself to Moscow on the grounds that it would undermine the sense of threat which holds NATO together, encourage cuts in West European defense budgets, and promote large-scale US withdrawals in turn. The USSR would recognize that, in the event of a crisis, it would enjoy an advantage in returning forces to the area.

There are a number of disadvantages, however, to the USSR in such a move. Several of them, such as concern for stability in Eastern Europe and inertia and vested interests within the Soviet bureaucracy, are discussed below. In addition, it is uncharacteristic of Soviet policy to make a major concession which could not be reversed without some cost, in hopes of precipitating a greater concession from the

opponent. The Soviet tendency is to hold what one has and demand what the enemy has. For these reasons, the USSR is not likely to make unilateral withdrawals on any significant scale. If they did adopt this kind of tactic, it would most likely be on a small scale, as in 1964 when they made token reductions in the GSFG.

The Imperial Factor

What the Soviets might regard as their military requirement for preserving their position in Eastern Europe has never been determined, apart from the requirements posed by the confrontation with NATO. Soviet rule in Eastern Europe in the Seventies is likely to become harder rather than easier as national self-confidence and national discontents both grow. If this does not happen, however, and if East-West relations develop in a way which diminishes the requirement for forward deployments against NATO, the USSR might believe that it could maintain the political integrity of the Warsaw Pact in peacetime with forces significantly less than the current levels in Eastern Europe.*

The Bureaucratic Factor

The Soviet Union is a highly bureaucratized structure, and those who wish to advance within it find it best to practice caution, prudence, and adherence to formalized procedures rather than initiative and imagination. The military is not exempt from this tradition, particularly in the field of theater forces, where the changeover of

*Some notion of what the Soviets might consider in this vein can be gotten from historical data. The USSR in earlier years used to propose reductions of foreign forces in Germany by one-third. More recently, the Soviets tolerated a temporary drawdown from the GSFG during the Czechoslovak crisis. Eight divisions were dispatched to Czechoslovakia, but some four others were brought in as replacements.

generations since World War II has been slower than in other industrialized countries. This factor suggests that substantial changes in force planning are not easy to coordinate through the Soviet bureaucracy and that the Soviet defense establishment is not well suited to quick reactions to external changes.

The Economic Factor

It is clear that the Soviet economy has been experiencing increasing difficulties in recent years. It is also clear that the present leadership is even less willing than Khrushchev was to deny military requests for expenditures. In fact, this is among the factors contributing to the USSR's current economic problems.

Estimates of total Soviet spending on defense and space show a 25 percent rise in the last five years--from 17.6 billion rubles in 1965 to over 22 billion 1970.* Expenditures for the general purpose forces, the largest major force element in money terms, have been rising more slowly, increasing 7 percent in the same period to about 6 billion rubles in 1970. Soviet general purpose forces opposite NATO now account for roughly two-thirds of total general purpose force spending. This share is declining slowly as the buildup in the Far East proceeds.

Increased resources for general purpose forces will be made available by the overall growth of the economy, and possibly by savings derived from a strategic arms control agreement as well. On the other hand, the civilian economy will be a major claimant for higher allocations and, even within the general purpose forces, those facing China will continue to compete with those facing NATO.

This includes all outlays for personnel and other operating costs; investment for all hardware and facilities; military research, development, testing, and evaluation; and all space programs.

Under present circumstances, the Soviets probably plan for no more than a continued gradual rise in spending for the forces facing NATO.

The foregoing discussion indicates that the size and structure of NATO forces are, for Soviet planners, only one element in a rather complex equation. By the same token, any changes on the NATO side will be only one factor in Soviet consideration of possible changes in the size and structure of the Warsaw Pact. The following sections discuss the ways and extent to which the USSR might alter these forces in response to NATO changes and how such NATO changes might affect Soviet considerations about the actual use of military force.

Reactions to Alternative US and NATO Force Structures and Strategies

Continuation of Present Situation

There is little reliable evidence about Soviet policy decisions for the future of Warsaw Pact forces, and current problems concerning China and East European reliability add to the uncertainties. There are no indications, however, that major changes in doctrine or strength are impending. If they perceive substantially the same threat from NATO as before, the Soviets would be expected to continue the major trends of recent years--stability in the overall size of forces facing NATO, coupled with improvement of both conventional and nuclear capabilities. Given probable continued constraints on large expenditure increases in this area, equipment programs are likely to proceed at the deliberate pace of recent years. For example:

-- About one-third of the Soviets' ground forces and two-thirds of their tactical air forces were reequipped during the past ten years.

-- Increases in the equipment levels have occurred through organizational changes in recent years and have included a 50-percent increase in conventional artillery pieces and multiple rocket launchers and a one-third increase in nuclear-capable tactical rockets in the Soviet divisions in East Germany and in a few divisions in the USSR.

-- Logistic capabilities have been proportionally increased to the extent that the previously established supply rate can be maintained for the expanded artillery force.

The Soviets will probably continue their equipment modernization over the next decade. The increases in artillery and multiple rocket launchers will probably be extended to all first-line divisions in the USSR, and the logistic needs generated by these increases can be expected to be met through reequipment of transportation units. Although some Soviet divisions will receive a new infantry combat vehicle, they probably will not completely meet their requirements in APCs. In addition, a fighter with significantly improved ground attack capabilities will probably be added to the tactical air inventory. Soviet tactical aviation will decrease in numbers over the next ten years, although its capabilities will improve as new equipment is acquired.

A Small Cut in US Forces

In the case of a reduction of US forces in Europe on the order of 10 percent, the Soviets probably would not believe that the situation had changed sufficiently to require them to alter their own force planning. Out of prudence, they would be prone to credit Western statements about maintaining the efficiency of the force and about capabilities for rapid reinforcement from the US mainland.

A Larger Cut

A greater decrease in US deployments in Europe--on the order of one-third--would have more significance for Soviet planners. The Soviets would see a diminution in NATO capabilities, the more so if the reduction were not accompanied by substantial improvements in US capabilities for return to the theater. Their reaction would also be influenced, however, according to whether West Germany also reduced its forces.

The USSR would perceive in this situation two different opportunities--to substantially enhance the relative military position of the Warsaw Pact, or to make some reduction in their own military effort.

Some analysts believe that they would choose the former course, maintaining or even increasing the pace of their modernization program with the intention of gaining a military advantage which would be useful in peacetime as well as important in wartime.

Other analysts believe that, in this circumstance of a diminished NATO threat, competing military and civilian priorities would lead the Soviets to level off or even reduce their expenditures on Central Region forces.

All agree that, if the Soviets chose this latter course, they would be concerned that early or large withdrawals would arouse unhealthy expectations and aspirations in Eastern Europe, and that Moscow would therefore proceed in a cautious, step-by-step fashion. Ultimately, Warsaw Pact withdrawals accomplished in this manner would probably be less than proportional to the US withdrawals.

Nuclear Strategy

The Soviets would probably see in any of the deeper cuts an implicit reversal in NATO's strategic thinking--that is, a veering away from conventional options and toward greater and earlier reliance on nuclear weapons. This would be true even in the case of a relatively small (125,000 men) US ground force which was explicitly designed to improve conventional capabilities. It would be most clearly perceived in the case of a very small US ground force (50,000 men, for example) whose function would be largely custody of nuclear weapons.

Renuclearization of NATO strategy should not materially affect Soviet force structure. Soviet forces are now structured in accordance with a

stategic doctrine that assumes nuclear war in the theater. It would reduce the requirements Moscow now perceives for improving the capabilities of its forces for sustained nonnuclear combat.

NATO Time Norms

Adjustment in the 90-day norm for NATO capabilities for conventional operations probably would not mean much to the Soviets. In conjunction with other changes, the Soviets might see it as additional evidence of renuclearization of NATO strategy. As such, it would carry the implication for Soviet force planning discussed in the preceding paragraph.

Soviet Attitude Toward Use of Force Under Alternative US and NATO Force Structures and Strategies

The Soviet attitude toward the various military contingencies is discussed in Part III of this report in the light, not of present NATO deployments, but of the alternative US and NATO force structures and strategies hypothesized in the report of Working Group 1.

It is concluded that, *considering the force structures and strategies alone*, these alternatives would not substantially alter the Soviet belief that military adventures against or all-out attack upon NATO is a highly dangerous course of action. Even with doubts about the will of the US to use the strategic power which would be occasioned by reductions down to a level of, for example, 100,000 men in Europe, the Soviets would still be required to reckon with a substantial chance of nuclear retaliation. Thus deliberate initiation of war in Europe would remain an unattractive course of action.

An extremely important factor in the Soviets' calculations is their estimate of US willingness to meet the risks and costs of fulfilling US commitments in extreme cases. In estimating this willingness, the Soviets will view US deployments in

Europe and stated NATO strategy as only one factor--and not the largest--in the total equation. They will also draw inferences from the general US stance, the attitudes and moods which led to adoption of the alternative posture, and the degree to which US conduct lends substance to its formal commitments. If the US and NATO force structure and strategies remain unchanged, but US behavior convinces the Soviets that the US has in fact become unwilling to stand by its commitments when put to the test, they would conclude that the risks associated with any given course of aggressive action had declined. Conversely, a US and NATO posture which had significantly reduced military capability would not produce such a change in Soviet policy if Moscow believed that the US remained willing to meet the risks and costs of fulfilling its commitments.

In conclusion, Soviet military response to alternative US and NATO force structures and strategies is less a function of these structures and strategies than of broader Soviet judgments derived from overall US behavior, in which US deployment in Europe is but one factor.

V. Statistical Annex

This section contains the following tables on Warsaw Pact force strengths:

Table 1

Distribution of Soviet Ground Divisions, by Location and Type

Area	Category I				Category II			Category III			Developing			Total			
	MRD	TK	ABN	Total	MRD	TK	Total	MRD	TK	Total	MRD	TK	Total	MRD	TK	ABN	Total
East Germany. . .	10	10	0	20	0	0	0	0	0	0	0	0	0	10	10	0	20
Poland.	0	2	0	2	0	0	0	0	0	0	0	0	0	0	2	0	2
Hungary	2	2	0	4	0	0	0	0	0	0	0	0	0	2	2	0	4
Czechoslovakia. .	3	2	0	5	0	0	0	0	0	0	0	0	0	3	2	0	5
Baltic MD	0	1(1)	1	2(1)	3	2	5	1-3	0	1-3	0	0	0	4-6	3	1	8-10
Belorussian MD. .	1(1)	0	1	2(1)	1	8	9	0	0	0	0	0	0	2	8	1	11
Carpathian MD . .	2(2)	2(2)	0	4(4)	5	1	6	1	0-1	1-2	0	0	0	8	3-4	0	11-12
Kiyev MD	0	0	0	0	3	7	10	0	0	0	0	0	0	3	7	0	10
Moscow MD	0	0	1	1	2	3	5	0	0	0	0	0	0	2	3	1	6
Odessa MD	0	0	0	0	3	1	4	2	0	2	0	0	0	5	1	0	6
Leningrad MD	2(2)	0	1	3(2)	2	1	3	4	0	4	0	0	0	8	1	1	10
North Caucasus MD	0	0	0	0	0	0	0	5-6	0	5-6	0	0	0	5-6	0	0	5-6
Transcaucasus MD.	1(1)	1(1)	1	3(2)	7	0	7	2	0	2	0	0	0	10	1	1	12
Ural MD	0	0	0	0	0	1	1	2	0	2	0	0	0	2	1	0	3
Volga MD.	0	0	0	0	0	0	0	3	0	3	0	0	0	3	0	0	3
Turkestan MD. . .	1(1)	0	1	2(1)	5	1	6	2	0	2	3	0	3	11	1	1	13
Siberian MD . . .	0	0	0	0	1	0	1	2	0	2	0	0	0	3	0	0	3
Trans-Baikal MD .	1	4	0	5	1	0	1	2	0	2	0-1	0	0-1	4-5	4	0	8-9
Far East MD . . .	3	2	1	6	4	1	5	1-2	0	1-2	2-3	1	3-4	10-12	4	1	15-17
Mongolia.	1	0	0	1	0	0	0	0	0	0	1	0	1	2	0	0	2
Totals.	27(7)	26(4)	7	60(11)	37	26	63	27-31	0-1	27-32	6-8	1	7-9	97-103	53-54	7	157-164

Note: Category headings represent levels of combat readiness, described on pages 29 and 30. Abbreviations for types of divisions are as follows: motorized rifle (MRD); tank (TK); and airborne (ABN). Numbers in parentheses represent Category I divisions which require some mobilization. The status of divisions in the Turkestan, Siberian, Trans-Baikal, and Far East military districts and in Mongolia along the Sino-Soviet border is uncertain; the figures shown above may understate their combat strength.

Table 2

Estimated Numbers of Soviet Tactical Aircraft in Operational Units, by Location and Type, and Projections for 1970 and 1971

	MIG-17 Fresco	MIG-19 Farmer	MIG-21 Fishbed D/F/H	YAK-28p Firebar	SU-7 Fitter	IL-28 Beagle	YAK-28 Brewer, B, C	YAK-27/28 Mangrove, Brewer D [a]	Total
East Germany	87	12	333	23	157	66	--	48	726
Poland	82	--	123	--	37	10	--	30	282
Hungary	--	--	127	--	37	52	12	--	228
Czechoslovakia	--	--	86	--	--	--	--	--	86
Baltic MD	49	--	90	--	--	40	96	--	275
Belorussian MD	99	12	74	--	37	32	--	--	254
Carpathian MD	89	37	74	--	37	32	32	32	333
Moscow MD	--	--	74	--	37	--	--	32	143
Leningrad MD	37	--	16	--	37	44	--	--	134
Kiyev MD	--	--	74	--	--	--	--	--	74
Odessa MD	12	--	111	--	37	25	--	32	217
Transcaucasus MD	--	--	111	--	37	32	32	--	212
Turkestan MD	90	--	90	--	--	20	--	--	200
Far East MD	37	--	130	--	37	32	--	--	236
Trans-Baikal MD	222	--	16	--	--	65	--	8	311
October 1969	804	61	1,529	23	490	450	172	182	3,711
Mid-1970	825-775	25-0	1,550-1,650	0-25	475-500	450-425	150-200	175-225	3,650-3,800 [b]
Mid-1971	800-725	-0-	1,550-1,700	0-25	475-500	425-390	150-200	200-250	3,600-3,800

Note: Excluded are some 1,000-1,100 older model aircraft in reserve, and an additional 1,500 combat-type aircraft in training establishments. There are also some 200-300 older model aircraft collocated with tactical units. The majority of these may be operationally assigned to TAF ground attack units.

a. *Brewer D is used for reconnaissance only, and has no combat capability. For this reason it is included with the YAK-27 Mangrove totals rather than with the Brewer B and C light bomber variants of the YAK-28.*

b. *This total includes an allowance for 0-10 Foxbat which may enter inventory in 1971.*

Table 3

Estimated Numbers of Soviet Tactical Aircraft in Operational Units,
By Mission and Type

Mission	Total	MIG-17	MIG-19	MIG-21	SU-7	YAK-28p	IL-28	YAK-28	YAK-27/28
Air defense.	1,619	151	61	1,384	--	23	--	--	--
Ground attack.	1,095	605	--	--	490	--	--	--	--
Light bomber	389	--	--	--	--	--	217	172	--
Reconnaissance and reconnaissance strike	608	48	--	145	--	--	233	--	182
Total.	3,711	804	61	1,529	490	23	450	172	182

Table 4

Estimated Numbers of Soviet Ships and Submarines
In Western Fleets, by Type and Fleet

Type	Northern	Baltic	Black Sea
Cruise missile submarines			
Nuclear (6-8 launchers)	14	0	0
Diesel (most with 4 launchers)	13	2	5
Ballistic missile submarines			
Nuclear	18	0	0
Diesel	15	0	1
Attack submarines			
Nuclear	20	0	0
Long-range diesel	34	8	0
Medium-range diesel	50	21	27
Short-range diesel	0	6	5
Unknown			
A class	1	0	0
Total	165	37	38
Operational surface ships			
SAM/SSM light cruisers	3	2	2
SAM light cruisers	0	0	1
Helicopter ships	0	0	2
SSM destroyers	0	2	4
SAM destroyers	5	4	12
Cruisers	1	4	3
Destroyers	7	8	14
Escorts	30	28	26 *a*
Total	46	48	64
Reserve surface ships			
Cruisers	1	1	1
Destroyers	4	7	4
Escorts	1	4	3
Total	6	12	8

a. Includes three in the Caspian Sea.

Table 5

Estimated Strength and Readiness of
East European Ground Divisions

	Strength	Total Divisions	Readily Available				Low Strength	
			MRD	TK	ABN	ASLT	MRD	TK
East Germany	90,000	6	4	2	--	--	--	--
Poland	200,000	15	5	5	1	1	3	--
Czechoslovakia	154,000	10	4	3	--	--	1	2
Hungary	90,000	6	3	1	--	--	1	1
Romania	170,000	9	5	2	--	--	2	--
Bulgaria	113,000	13*	5	5	--	--	3	0
Total	817,000	59	26	18	1	1	10	3

* *These totals count five Bulgarian tank brigades and three training units as divisions. The tank brigades are about one-third the size of a Soviet tank division.*

Table 6

Estimated Numbers of Operational East European Combat Aircraft, By Location and Type, and Projections for 1970 and 1971

	MIG-21 Fishbed D/F	SU-7 Fitter	MIG-21 Fishbed C/E	MIG-19 Farmer	MIG-17 Fresco	IL-28 Beagle	Total
Bulgaria.	25	--	15	75	180	10	305
Czechoslovakia. . .	115	85	50	70	210	25	555
East Germany. . . .	205	--	40	10	50	--	305
Hungary	45	--	60	10	30	--	145
Poland.	165	20	20	15	605	60	885
Romania	70	--	40	20	135	10	275
October 1969. . . .	625	105	225	200	1,210	105	2,470
Mid-1970.	630-725	120-150	210-220	160-190	1,075-1,200	95-100	2,290-2,585
Mid-1971.	675-775	120-175	190-210	130-150	1,000-1,100	80-90	2,195-2,500

Table 7

Estimated Number of East European Naval Vessels, by Type and Location

	Baltic Sea		Black Sea	
	East Germany	Poland	Bulgaria	Romania
Destroyer types	3	3	2	--
Submarines	--	5	2	--
Guided missile patrol boats	12	12	--	5
Motor torpedo boats	66	28	8	13
Submarine chasers	26	8 (18) a	8	3
Miscellaneous patrol boats	59	-- (28) a	--	3
Fleet minesweepers	19	24	2	4
Small minesweepers	37	35	18	28
Amphibious ships	6	22	--	--
Amphibious craft	12	23	11	8
Total	240	160 (46)	51	64

a. Figures in parentheses are augmenting coast guard units, which now operate in close coordination with the Polish Navy.

Table 8

Warsaw Pact Naval Aircraft, by Type and Location

	Soviet			Polish
	Northern Fleet	Baltic Fleet	Black Sea Fleet	Naval Aviation
Missile and bomber force				
TU-16 Badger	107	78	80	--
Reconnaissance and miscellaneous aircraft				
TU-95 Bear	26	--	--	--
TU-22 Blinder	--	31	31	--
TU-16 Badger	24	5	24	--
IL-28 Beagle	--	60	10	52
MI-4 Hound	6	--	--	--
ASW aircraft				
IL-? May	15	--	--	--
BE-12 Mail	16	--	26	--
BE-6 Madge	10	8	5	--
KA-25 Hormone	8	--	47	--
MI-4 Hound	30	25	40	--

Table 9

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

Currently Available Forces	Armies			Divisions	Estimated Wartime Strength			
							Aircraft	
	Combined Arms	Tank	Tactical Air		Men	Tanks	Ground Attack and Reconnaissance *a*	Air Defense *b*
GSFG and East German Army	5	2	1	26	405,000	6,500	400	640
Czechoslovak Front	3	--	1	12 *c*	180,000	3,000	260	300
Carpathian Front *d*	2-3	1	1	15	230,000	3,400	210	200
Polish Front	3	--	1	15 *e*	215,000	2,800	260	620
Northern Group of Forces in Poland	--	--	1	2	35,000	600	170	110
Belorussian Front	1	2	1	11 *f*	165,000	2,800	150	110
Baltic MD	1	--	1	5 *f*	60,000	1,000	200	70
Total	15-16	5	7	86	1,290,000	20,100	1,650	2,050

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. Table 5 shows 10 Czech divisions. Evidence provided by a high-level defector indicates that the Czechs plan to field two additional divisions in wartime.
d. Includes the Central Group of Forces of Czechoslovakia, which approximates a field army.
e. Includes an airborne division and an amphibious assault division.
f. Includes airborne division centrally controlled by Moscow.

Table 10

Estimated Mobilization and Reinforcement Capability
Of Warsaw Pact Forces Opposite NATO

Region and Force	M	M+5 *a*	M+10 *b*	M+21 *c*
North *d*				
Armies	0	1	1	1
Divisions	1	3	3	3
Men	10,000	40,000	40,000	40,000
Tanks	185	555	555	555
Aircraft	134	134	134	134
Tube artillery	48	324	324	324
Multiple rocket launchers	12	36	36	36
Heavy mortars (over 82mm)	45	135	135	135
Frog launchers	3	9	9	9
Scud launchers	0	18-27	18-27	18-27
South *e*				
Armies	0	3	4	4
Divisions *f*	10	13	17	17
Men	57,500	96,000	169,000	169,000
Tanks	1,260	1,560	2,425	2,425
Aircraft	300	517	517	517
Tube artillery	340	687	970	970
Multiple rocket launchers	90	126	174	174
Heavy mortars (over 82mm)	200	308	480	480
Frog launchers	20-30	20-30	32-42	32-42
Scud launchers	0	18-27	42-63	42-63
East *g*				
Armies *h*	0	1	3	3
Divisions	2	9	9	9
Men	18,000	98,000	113,000	113,000
Tanks	495	1,790	1,790	1,790
Aircraft	212	212	212	212
Tube artillery	84	474	582	582
Multiple rocket launchers	24	108	108	108
Heavy mortars (over 82mm)	60	375	375	375
Frog launchers	6	27	27	27
Scud launchers	0	12-18	18-27	18-27
Central *i*				
Armies *h*	10	14	21	21(25)
Divisions	38	58	85	86(112)
Men	506,000	768,000	1,209,000	1,290,000(1,465,000)
Tanks	9,155	13,980	20,100	20,100(27,400)
Aircraft	1,672	2,707	3,700	3,700(3,777)
Tube Artillery	2,796	4,188	5,670	6,156(7,434)
Multiple rocket launchers	648	932	1,256	1,256(1,580)
Heavy mortars (over 82mm)	1,059	1,416	2,211	2,211(2,886)
Frog launchers	143	223	331	331(422)
Scud launchers	87	114	153-168	171-195(204-240)

Tabulation Notes to Table 10

Note: There are five Soviet airborne divisions in the regions confronting NATO. These divisions are directly subordinate to the Defense Ministry and are not counted in this tabulation.

a. *Approximate end of first phase of reinforcement, i.e. when forward forces are in area of operations and deployable.*

b. *Approximate end of next significant reinforcement phase, i.e. when one or more additional ground or air armies are mobilized and generally in operations area.*

c. *Approximate end of main Warsaw Pact reinforcement phase, i.e. when additional fronts in their entirety are generally in the intended area of operations and the special and strategic reserves are in place.*

d. *These forces include units of the Leningrad Military District in and near northern Norway.*

e. *These forces include Bulgarian forces and troops from the Odessa Military District.*

f. *These totals count five Bulgarian tank brigades and three training units as divisions. The tank brigades are about one-third the size of a Soviet tank division.*

g. *The forces in this region are all presently located in the Transcaucasus Military District.*

h. *These totals include a corps headquarters. Corps do not represent an intermediate echelon between division and army headquarters; in most cases they function as small army headquarters.*

i. *These forces include Soviet forces in East Germany, Czechoslovakia, Poland, and the Carpathian, Belorussian, and Baltic military districts. Also included are the Czechoslovak and Polish national forces (except the airborne and assault landing divisions). Totals in parentheses include the contingency and strategic reserve forces--the Hungarian national forces and the Soviet Southern Group of Forces in Hungary and the armies from the Kiyev and Moscow MDs. Soviet forces in Hungary and the Hungarians could also be used to reinforce against the Southern Region. The aircraft totals exclude 465 Polish aircraft assigned to national air defense. The all-weather interceptors in the Hungarian Air Force--55 aircraft--are also excluded.*

Table 11

Soviet Strategic Attack Forces Opposite NATO *a*

Missile Force	Number of Launchers
Land-based ballistic missiles	
Intermediate range ballistic missiles (SS-5)	80
Medium range ballistic missiles (SS-4)	510
Variable range ballistic missiles (SS-11) *b*	40
Total land-based launchers	630
Ballistic missile submarines (diesel)	
G Class (14) *c*	42
Z Conversion (2)	4
Total sea-based launchers	46

Bomber Force	Aircraft
Medium bombers of Long Range Aviation	
TU-22 Blinder	175
TU-16 Badger	420
Total bomber force	595

a. Includes all elements of the Soviet Strategic attack forces which are considered to be intended primarily for peripheral operations, and which are normally based within striking distance of Western Europe. Some of these forces also are capable of strikes against North America, but this is not believed to be their primary mission. All data are approximate.

b. Recently, the Soviets deployed a variable range ballistic missile, which is believed to be basically the SS-11 ICBM. The SS-11 has been fired at ranges as short as 500 nautical miles and is capable of ranges up to 5,500 nautical miles.

c. Two of these G class submarines are undergoing modification and are not active.