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Responses to Questions Concerning

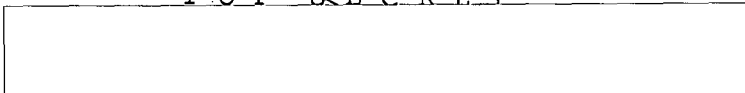
"SOVIET CONCEPTS OF WAR IN EUROPE"

From

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OFFICE OF STRATEGIC RESEARCH

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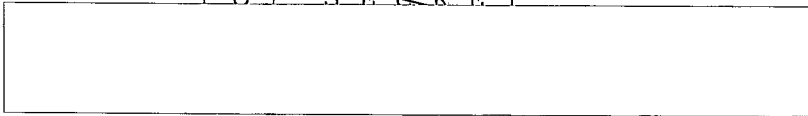
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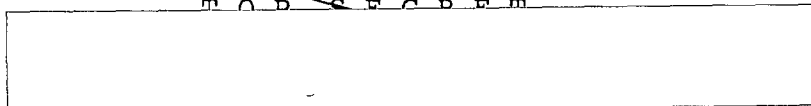
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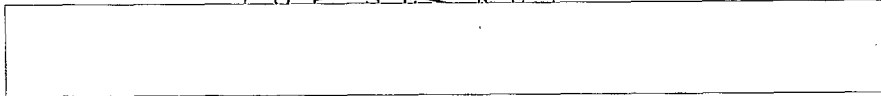
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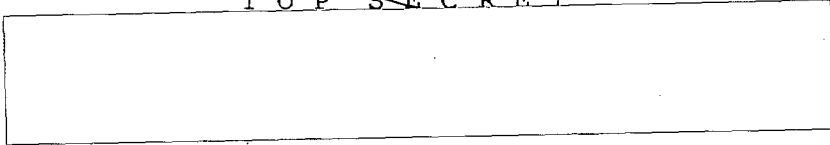


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Responses to Questions

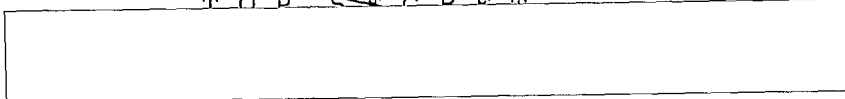
1. *The study notes that the Soviets "believe that NATO does not intend to restrict the European conflict to the use of tactical nuclear weapons only, and that a limited nuclear response by them would only offer the West an opportunity to deliver first a massive and decisive strategic nuclear strike."*

-- What is meant in this context by the word "strategic" both in terms of delivery systems and in terms of targets? Does the evidence indicate whether the Soviets distinguish between a nuclear attack on East Europe and an attack on the Soviet Union?

The Soviets consistently term as "strategic" those US weapon systems capable of striking the territory of the USSR, including forward based systems. In designating their own weapon systems, they normally take 1,000 km as the minimum range for a strategic weapon.

In the OSR study, the "massive and decisive strategic nuclear strike" by NATO is meant to include, at the least, all Europe-based US and NATO nuclear delivery systems, including aircraft from carriers, attacking targets in Eastern Europe and inside the USSR. It could also include the US intercontinental strike--the SIOP. This judgment is a deduction from the evidence since none of the Warsaw Pact documents available to us makes so explicit a statement. The nearest they come to the point is in the [redacted] briefing on Wintex-71 which states that the first (NATO) mass nuclear strike constitutes the beginning of "the period of

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unlimited use of nuclear weapons." Previously, [REDACTED] [REDACTED] critique had noted that Fallex-68 marked the first time that NATO had unleashed general nuclear war.

We cannot determine whether the Soviets really expect the US to implement the SIOP in an escalating conflict in Europe or whether they expect an attempt to limit a nuclear war to Europe. Certainly, the evidence suggests that they consider implementation of the SIOP to be a serious possibility and that Fallex-68 was a rehearsal of such a contingency.

Until quite recently, no Warsaw Pact exercise seems to have included any strategic missile forces. However, in Exercise Yug, earlier this year, a major joint ground, air, and naval exercise was climaxed by the live firing of strategic rockets, including an ICBM. This could represent a further step in the development of Warsaw Pact exercise practices in response to NATO exercise scenarios. This is only a tentative judgment because the scenario of Yug has not yet been determined. The exercise took place in the southwestern USSR and, because only Soviet troops participated, it was not strictly speaking a Warsaw Pact exercise.

We know from SALT that the Soviets consider NATO's forward based aircraft to be strategic systems because they can strike targets in the Soviet Union. [REDACTED]

the Soviets would be confronted with the choice of either launching a retaliatory intercontinental strike or accepting the nuclear strikes of NATO's forward based systems as a necessary price to pay to exclude intercontinental systems from the conflict.

[REDACTED]

The Soviets could avoid this dilemma by moving some of their peripheral strike force outside the Soviet Union, but they have not done so. The security of nuclear warheads would not appear to be the reason, if as we believe, tactical warheads are stored in Eastern Europe. The Soviets might feel that the exclusive retention of their land-based strategic systems in the USSR adds to their deterrent value against a NATO nuclear strike.

There is some evidence that the Soviets might not consider a nonnuclear strike on Soviet territory a justification for expanding a conflict. The Soviets evidently plan to employ USSR-based medium bombers in mass conventional attacks on NATO airfields in an initial nonnuclear phase, suggesting that they might accept the loss of Long Range Aviation bases located in the Soviet Union. The Soviets appear to believe that the use of the LRA against NATO airfields would be essential to their efforts to gain air superiority in the initial conventional phase. However, they probably assume for planning purposes that NATO would retaliate with at least conventional air strikes against the Soviet LRA bases. Assuming that the Soviets would not wish at that point to escalate from conventional to nuclear warfare, we believe that they would not consider conventional strikes on their territory a signal to escalate the war.

-- What is meant by the word "decisive"? Does the evidence suggest that the Soviets believe the United States alone or in combination with its allies has or is acquiring a first strike capability against Soviet strategic and theater nuclear forces? How do the Soviets assess NATO's tactical and theater nuclear capabilities in a first strike?

The word "decisive" is used here in the peculiarly Soviet meaning, i.e., that the initial

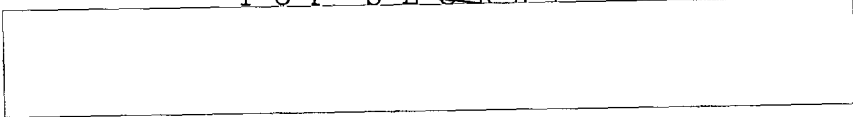
massive nuclear strike will be decisive simply because it will have an impact greater in significance than any other phase of the conflict. The term "decisive," as the Soviets use it, does not necessarily carry the implication of being conclusive. The OSR study was not intended to convey the idea that the Soviets believe the US, with or without NATO, has or is acquiring a first-strike capability. In fact, such evidence as is available suggests that the Soviets consider that they now have strategic parity with the US and that the US is thereby at least deterred from beginning a war with a general nuclear attack. Beyond this the evidence simply does not address these issues.

Although the Soviets place great significance on the initial front and theater nuclear strikes, they probably do not consider that a Soviet failure to launch first would mean losing the theater war. The lecture notes referred to in the OSR paper indicate that, if the Soviets cannot preempt, they would plan to retaliate almost simultaneously. Even if their initial nuclear strike followed completion of NATO's first strike, they apparently feel that enough of the Pact's theater forces would survive to be able to support an offensive against NATO.

-- *Do the Soviets think that NATO will or could limit a nuclear war in Europe, or do they expect automatic escalation to SIOP?*

The Soviets certainly believe that NATO exercises are consistent with the doctrine of flexible response. Accordingly, they believe that the US would like to limit a nuclear war to Europe. At the same time, the Soviets apparently believe that NATO is heavily reliant on nuclear weapons at the theater level and that inevitable escalation in NATO's use of such weapons would drive them to the massive use of their own strategic peripheral strike forces.

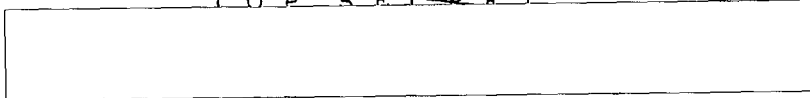
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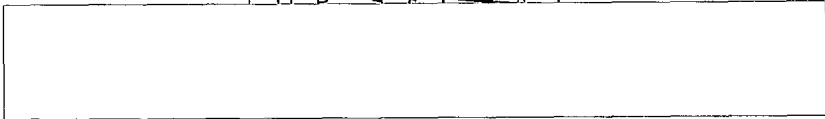


In this event, the Soviets would have to take into account the likelihood of heavy pressures on the US by its European allies to escalate to the SIOP if the fate of Western Europe appeared to be at stake.

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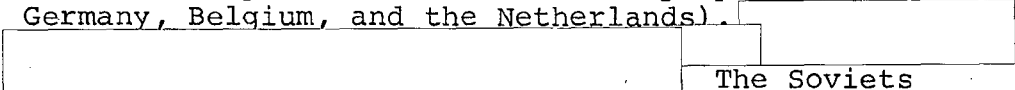
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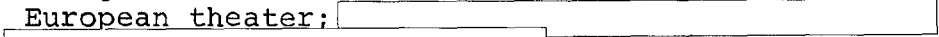


2. Do we know the Pact's assessment of NATO's conventional capabilities and the evidence it is based on? How might the Warsaw Pact's view be expected to change regarding (a) NATO's conventional capabilities, and (b) the likelihood of NATO using nuclear weapons at an early stage of a European war, with changes in NATO's doctrine, capabilities, and exercises?

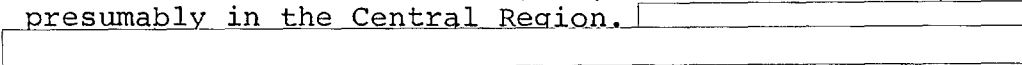
The available evidence shows that the USSR has reliable estimates of NATO forces and posture. A recent Soviet assessment of NATO holds 25 divisions (including 2 French on West German territory) in the Central European theater of military operations (West Germany, Belgium, and the Netherlands).



The Soviets assign 1,400 NATO tactical aircraft to the Central European theater;



The Soviet estimate also states that NATO has 1,300,000 men under arms, presumably in the Central Region.



If not available in open sources, these figures were probably obtained from official NATO documents which have reached the Pact one way or another.

The Poles, probably for political reasons, exaggerate West German capabilities. In a 1967 speech, Marshal Spychalski, then Minister of Defense, stressed that in the event of mobilization West Germany's 12 divisions could be doubled and at a later period could be increased to 40. Spychalski appeared alarmed at West German increases in nuclear delivery vehicles, artillery, tanks, and aircraft and contended that West Germany's capability for carrying out independent aggressive operations was being enhanced. The marshal



[REDACTED]

also pointed out that German organizational structure is adaptable to independent operations and that by 1970 the Bundeswehr would have 2,000,000 trained men available.

This appears to be a considerable exaggeration of the Federal Republic's mobilization capabilities. Although the FRG plans to increase its manpower from less than 600,000 to more than 1,000,000, there are no plans to increase the number of divisions.

The following Soviet assessment of NATO's overall capabilities was presented in one of the documents:

Strong Aspects

1. ample number of nuclear delivery vehicles;
2. advantageous operational-tactical position;
3. high degree of combat preparedness.

Weak Spots

1. multinational composition;
2. overextended distribution;
3. remoteness of missile units from borders;
4. large number of obsolete aircraft;
5. absence of depth of operational-strategic buildup.

Of possible comparative interest is the assessment of Pact potential--apparently against the Central Region--found in the [REDACTED] lecture notes: "3 to 5 fronts--10 to 17 armies, 40 to 90 divisions, 6,000 to 11,000 artillery pieces (including mortars), 10,000 to 20,000 tanks,

3,500 to 5,000 aircraft." These numbers are roughly equivalent to US estimates. If the range is assumed to represent the situation with and without reinforcement from the USSR, comparable US numbers would be 3 to 5 fronts--10 to 17 armies, 40 to 83 divisions, 6,500 to 10,000 artillery and mortars, 13,000 to 20,000 tanks, 3,100 to 4,200 aircraft.

Thus, it would appear that the Soviets use reasonably accurate data in quantitative NATO/Pact comparisons. They draw the obvious conclusion that the Pact is superior in some of the factors which they consider critical in conventional war, i.e., tanks and artillery.

In the past, the Soviets have shown themselves to be alert to changes in NATO's capabilities and doctrines. Their interpretations of these have been accurate and realistic as to effects, but skeptical as to the purported motives and ultimate intent. There is little in the evidence, however, that would help to forecast the precise impact of possible future developments in NATO's doctrine, capabilities, and exercises on Soviet views. It is difficult to assess, for example, whether the Soviets see NATO's introduction of the conventional phase as an opportunity to avoid escalation to nuclear war. They still regard this conventional period as only a phase of a larger war, perhaps because they believe this is the way NATO itself regards the conventional phase.

On the other hand, NATO's introduction of a conventional phase has resulted in major changes in Soviet force posture. The 50-percent increase in artillery, as noted in the Intelligence Memorandum (page 23), is almost certainly a product of NATO's doctrinal initiative, in that the extra artillery is intended mainly for use in the initial breakthrough

[REDACTED]

of NATO's defenses where, under the earlier Pact concepts, nuclear strikes were expected to facilitate a breakthrough.

In addition, recently acquired evidence shows that the changed NATO doctrine is influencing Soviet concepts of the initial NATO-Pact air battle. Formerly, the Soviets planned to rely on nuclear strikes by their MR/IRBMs to eliminate most of NATO's air capability by destroying its airfields at the outset of hostilities. They also listed all of NATO's nuclear delivery systems as priority targets for Pact tactical aircraft, missiles, and rockets. Tactical aircraft during this period were also to provide substantial support to the ground forces.

During the conventional phase which the Soviets now anticipate, the main objective would be to attain air superiority by giving priority to nonnuclear strikes by the LRA's medium bombers against NATO airfields. Attack on other NATO nuclear delivery systems is to be deferred until the nuclear phase. During the early part of this campaign for air superiority, tactical air forces would be used chiefly to create corridors through NATO's air defenses for the bombers and would provide little support to ground forces.

It is likely that the Soviets will be alert and responsive to any future NATO developments, but we can only speculate as to the direction the responses might take. If, for example, NATO doctrine tended away from flexible response and back toward a massive, early use of nuclear weapons, the Soviets might revert to their "inevitable escalation" doctrines of the early Sixties with an increased concern with strategic preemption. But a NATO trend toward positive and overtly defined limited strategic nuclear options might be less likely to persuade the Soviets to adopt similar strategies. This

[redacted]

would stem from fundamental distrust of NATO's motives and consequent fear of preemption, and from an apparently pervasive doubt that controlled, limited nuclear war is a rational and feasible option.

The documents do contain one interesting piece of information that may provide some insight into Soviet rationales for maintaining large numbers of troops in Eastern Europe. The [redacted] briefing on Wintex-71 observes that it is characteristic of major NATO exercises to date that "the initial situation of the 'Orange' [Warsaw Pact] forces has been characterized by indications of internal disintegration in the Communist Parties of the socialist countries, by disagreement in the leadership of these countries, and also by significant political, ideological, and economic difficulties." The briefing states that this premise is also true for Wintex-71 where "it is clearly expressed that increased ideological-political weakening and undermining of the socialist camp are considered a premise for aggression."

--What forces and force ratios are required, in the Soviet view, to insure offensive success in a conventional war? Do the Soviets believe that the Warsaw Pact currently has this conventional capability in the Central Region?

We do not believe that any single Soviet planning factor involving force ratios can be usefully applied. The [redacted] lecture notes state that planners strive to attain a 2:1 ratio of superiority in overall strength (presumably at theater or front level) and of 3:1 or more in the direction of the main blow (the main axis in a major offensive operation).

[REDACTED]

This statement appears to be a generalization and more in the nature of a rough rule of thumb for planners than a formula for allocation of forces. Obviously, a number of variables, specific to each situation, would cause planners to modify the rule. In the final analysis, military actions are largely governed by two considerations: the mission and available resources. All others are secondary. The final decision is almost inevitably a compromise. In any event, military history shows that the outcomes of military engagements frequently are attributable as much to such intangible factors as leadership, resolve, chance, and the quality of men as to numerical force ratios.

The Warsaw Pact does not now, at least, hold an overall 2:1 superiority over NATO. Even though the Pact may have this superiority in tanks and artillery, it is roughly equal in manpower and numbers of aircraft and does not appear to be uncomfortable with this relationship. A survey of Pact exercises, furthermore, suggests that the "3:1 or more" superiority on the main axis probably does not have much validity even in practice.

Only one Warsaw Pact exercise has discussed force ratios in a successful conventional offensive operation. [REDACTED] critique of Exercise Narew in 1965 recounted three such situations. In the first, the Polish Masurian Front on the first day of the conflict was said to have conducted a conventional offensive with an advantage of 1.5:1 in divisions, 1.6:1 in tanks, and 1.1:1 in artillery guns. The engagement was considered a success even though the pre-determined line of advance was not achieved.

On the second day of the conflict the Masurian Front forces found themselves at a disadvantage at one of the sectors of the front: the West had a 5:4 division advantage in one of the Polish

army's zones of action, while the ratio of combat strength was almost even in the zone of the other Polish army. The West was considered to have the further advantage of being in a defensive position. The Masurian Front commander then committed an additional army to the offensive, which resulted in a Masurian Front advantage of 1.6:1 in divisions (although only 1:1 in manpower), 1.7:1 in tanks, and 1.5:1 in artillery.

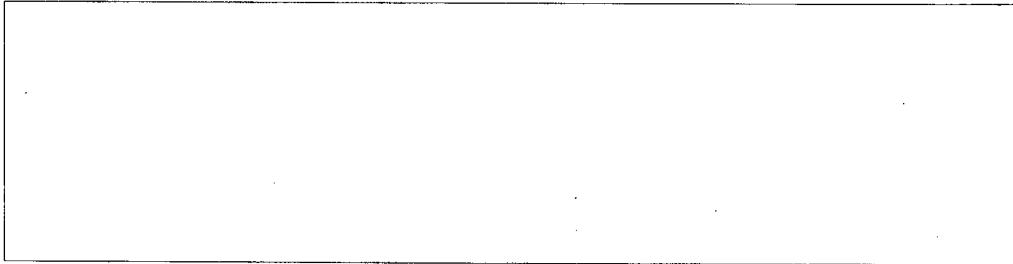
In a third situation, a Polish army advanced 40 kilometers in less than a day with a superiority of 2.3:1 in battalions, 2.8:1 in tanks, and 1.6:1 in artillery.

An analysis of the Polish summer exercise Lato-68 provides a limited, but interesting insight into the force ratios and composition that might be required for an offensive operation employing nuclear weapons. In this exercise, the East's Lubus Front was committed the second day of the conflict and planned to conduct an offensive with a force ratio superiority of 1.3:1 in divisions, 1.3:1 in tanks, 1.4:1 in aircraft, and an apparent 1:2 disadvantage in nuclear delivery means. The front apparently tried to offset its nuclear disadvantage by launching a nuclear first strike with warheads with a total yield of 3,410 kilotons at the outset of the operation.

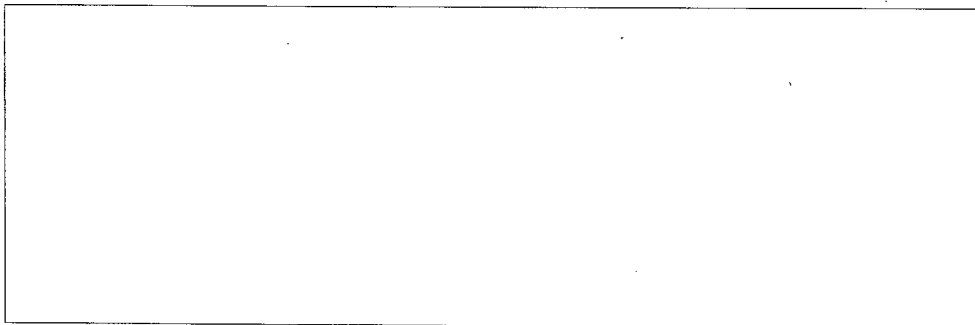
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Of the surviving NATO theater nuclear forces in any scenario, how many delivery vehicles would be based in the sectors normally assigned to Pact strategic forces? Where are they located and what are their characteristics?

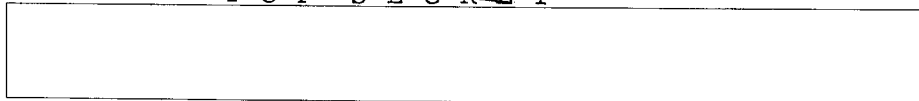
In view of the time constraints, and the lack of available methodologies for dynamic assessment of NATO/Warsaw Pact nuclear exchanges, we have necessarily limited this analysis to a static assessment of Pact nuclear capabilities against NATO Europe. Since the only data on nuclear targets in the NATO area readily available to OSR were aggregated to include all the NATO regions, it was not possible to restrict the assessment to Central Europe. We believe, however, that the findings are reasonably valid for this region.



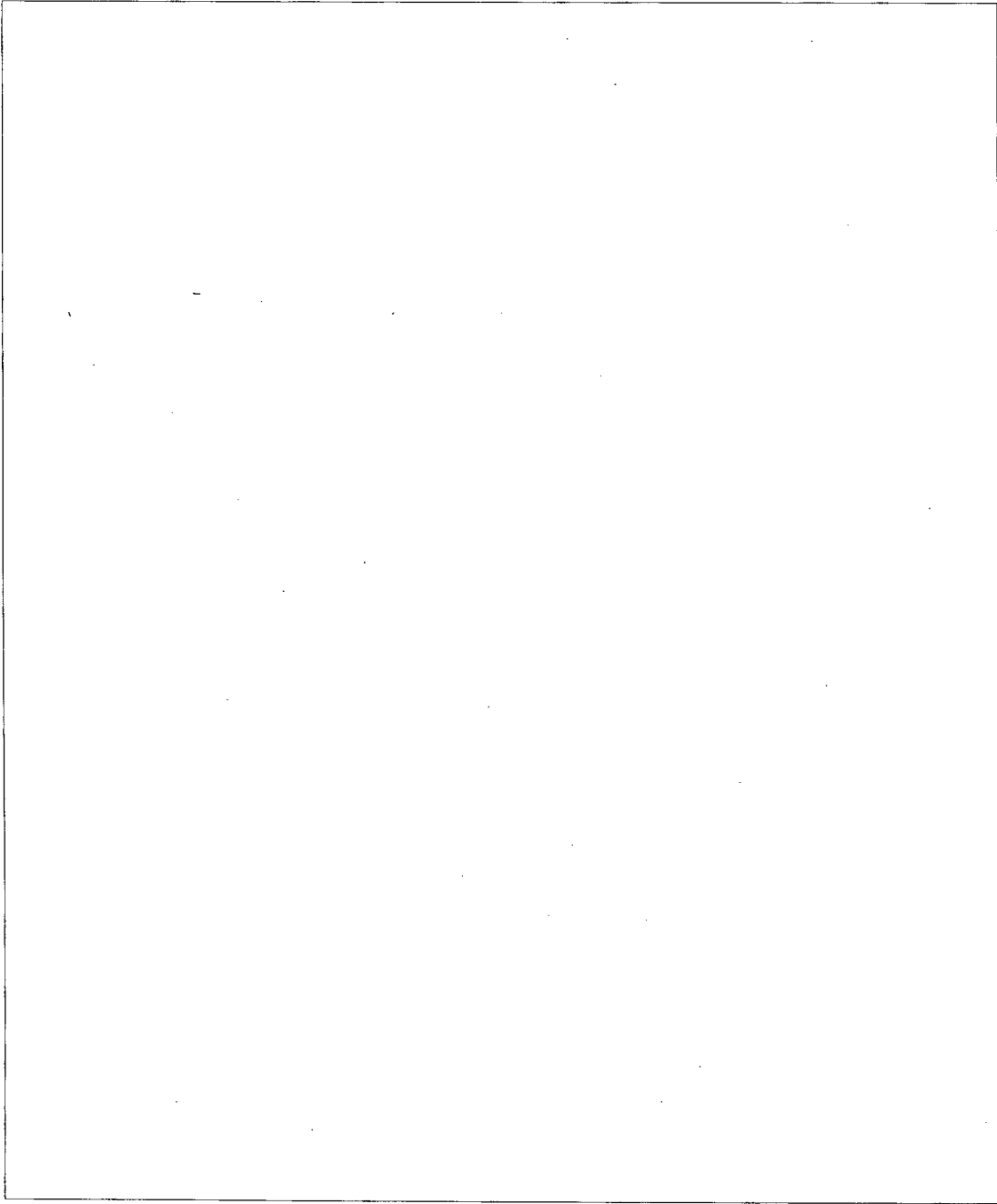
Our study examines two scenarios for nuclear war against NATO: war beginning with an initial nuclear strike, and war beginning with a conventional phase followed by a nuclear attack--the scenario most commonly observed in Pact planning and exercises. These two scenarios are each in turn viewed under two conditions: with strategic weapons, and excluding strategic weapons.* The second condition represents a situation not considered by Pact planners, who invariably include strategic weapons in any plan for theater warfare against NATO. The main conclusion of the study was derived from the combination of the second scenario with the second condition--that combination which would produce the "worst case" for Pact nuclear forces, as shown in greater detail in the Annex.



* In this context, "strategic weapons" includes those weapons normally planned to be used beyond a 300 km limit from the FEBA, i.e., MRBMs, IRBMs, medium bombers, and G class submarines. This is also approximately the maximum range of tactical nuclear missiles.



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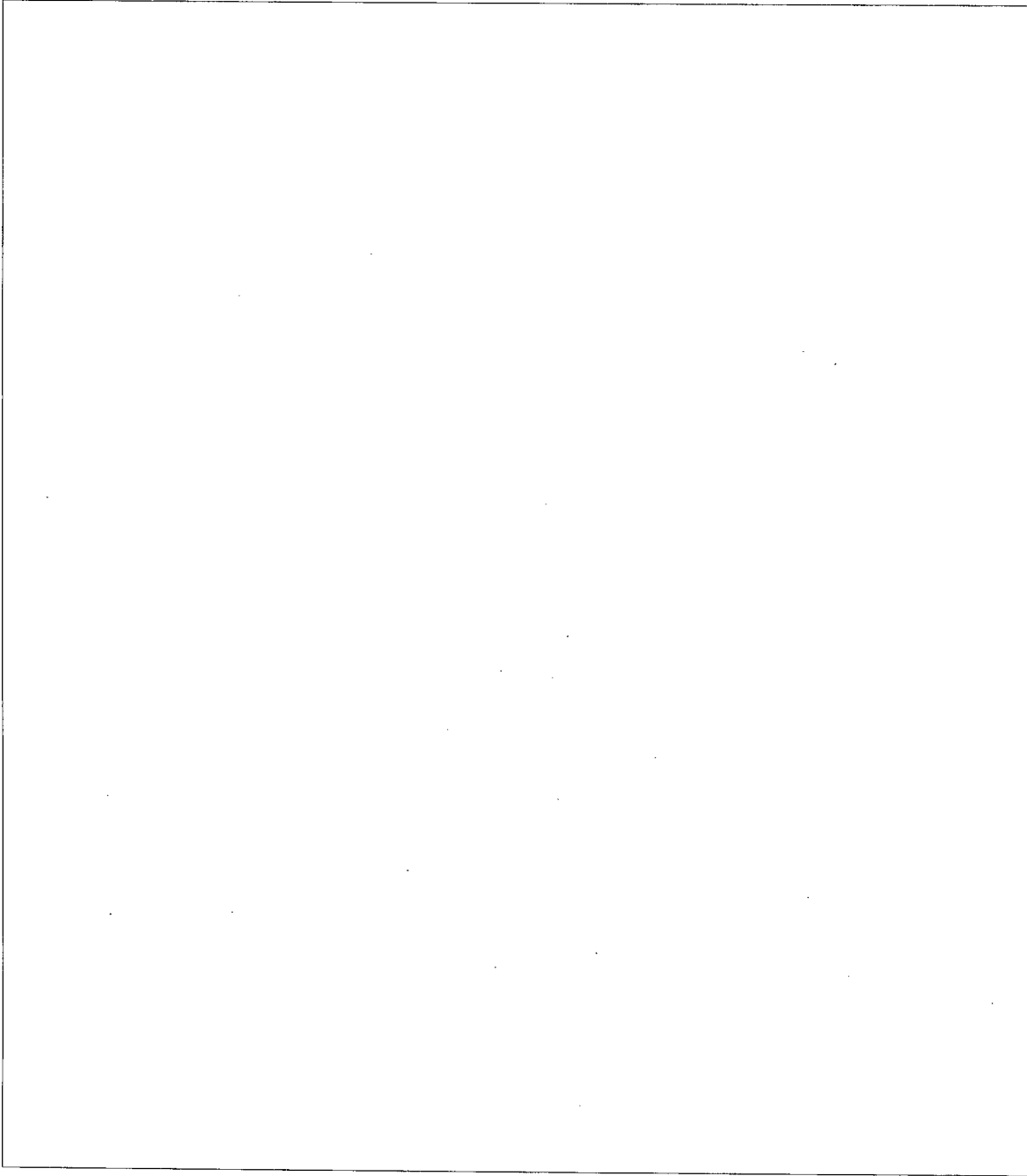
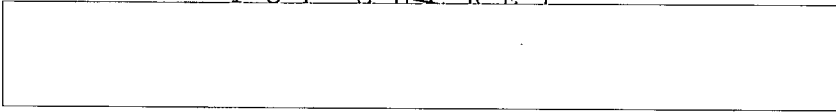
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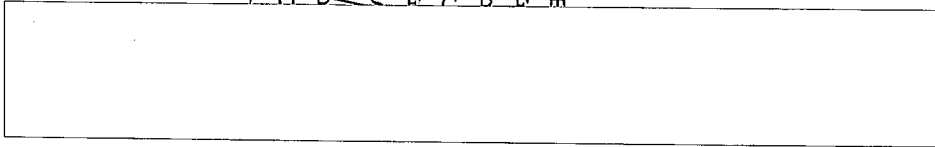
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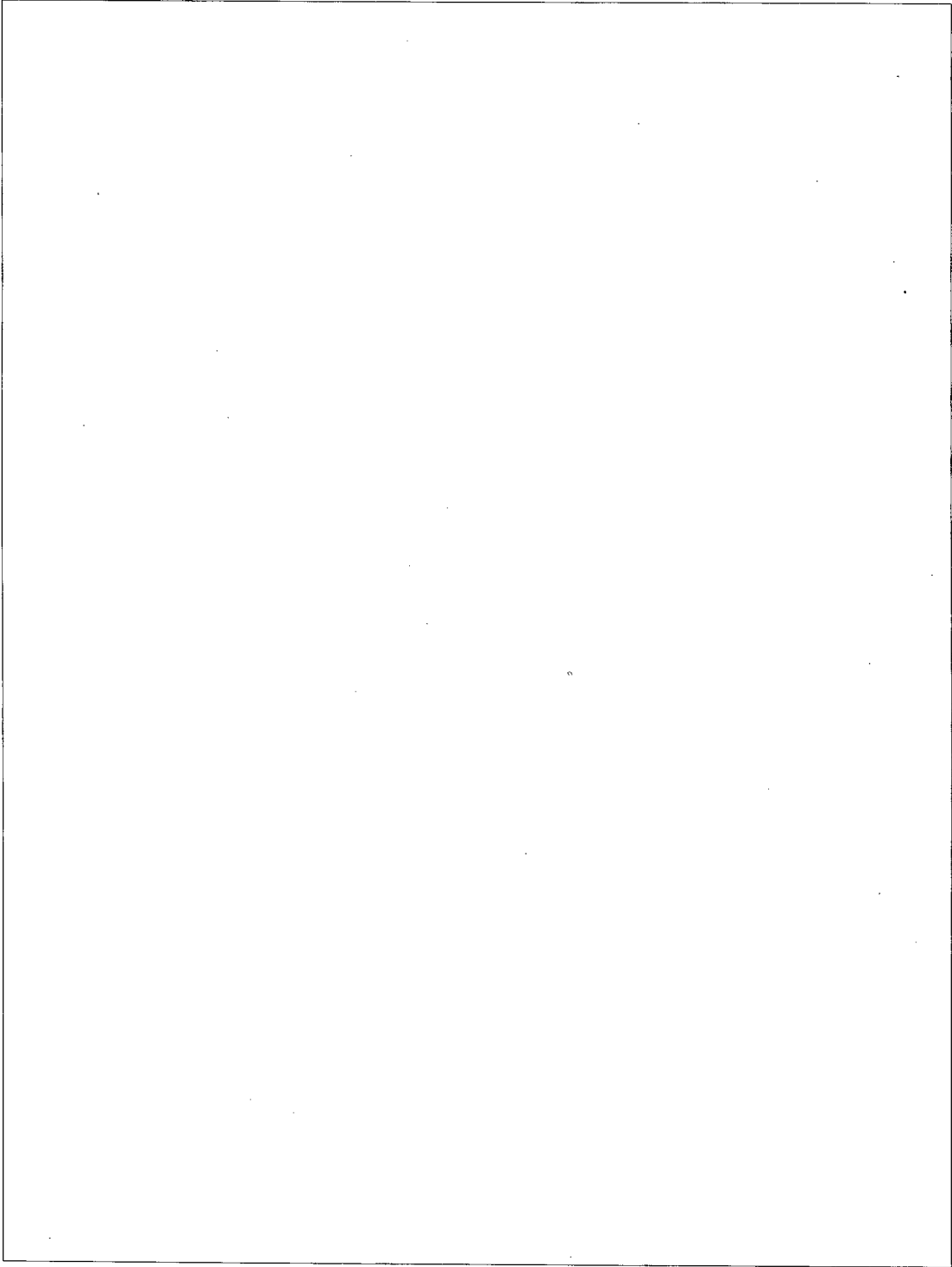
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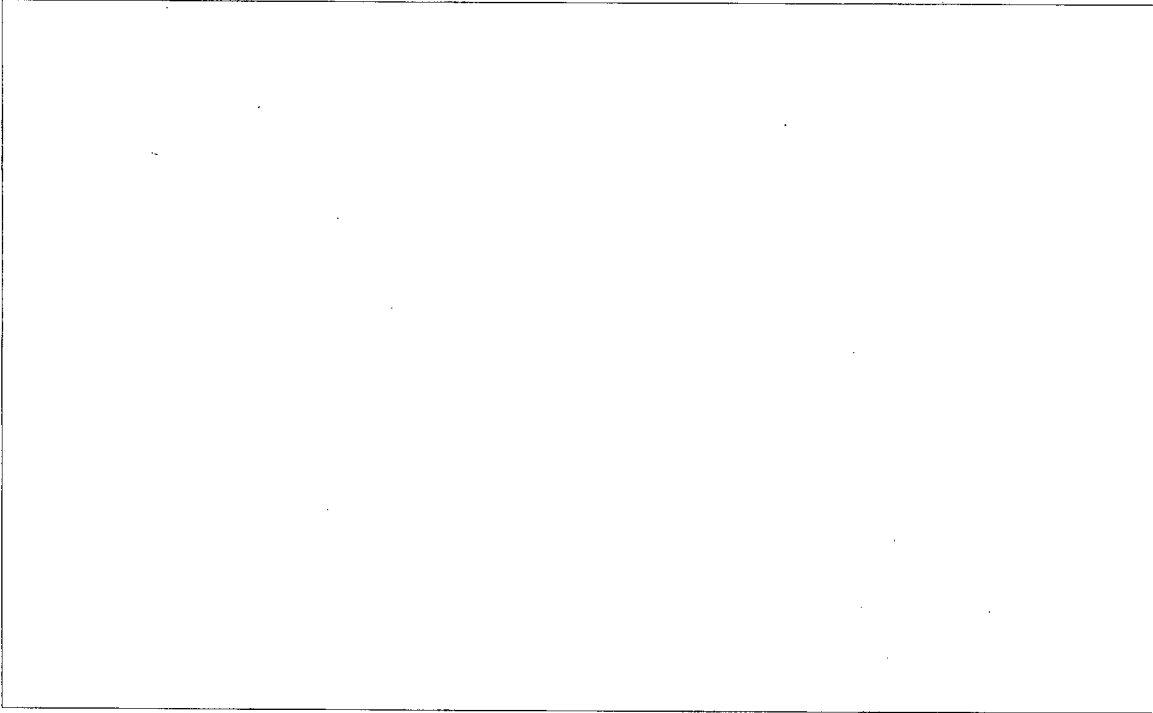
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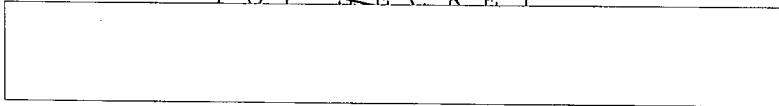
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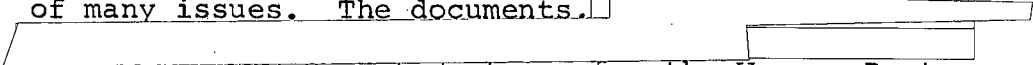




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We have no current evidence of a debate within Warsaw Pact circles on the nature of theater, limited nuclear, or strategic nuclear war. There has been some discussion of conventional war in the Soviets' military lectures and writings, but, as we concluded in the subject paper (page 9 and elsewhere), their view of NATO intentions has led them to conclude that a European war is not likely to remain conventional or limited.

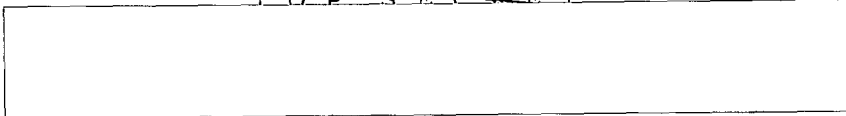
The little information we have of East European differences with the Soviet Union is three years old and addresses the more general question of opposition to the broad outline of Soviet concepts of war in Europe, rather than the above specific questions. The best of our information consists of two Czechoslovak documents prepared during an extraordinary period--spring 1968--when Prague, under the reform-minded leadership of Alexander Dubcek, and Moscow were ranged on opposite sides of many issues. The documents. [redacted]



[redacted] rejected Soviet doctrine for the Warsaw Pact as an infallible guide for Czechoslovakia and argued that the aggressiveness of the West had been deliberately overrated and used by Soviet and pro-Soviet spokesmen to instill a sham unity in the Pact. The two documents, on the other hand, claimed that the consequences of nuclear war in Europe have been seriously underrated. One of the papers disputed the assumption that the Pact can win a nuclear war in Europe, stating that such a war would mean "national liquidation and the destruction of all the states involved."



One year earlier, Polish Defense Minister Spychalski implied that the USSR in some cases would *not* risk an all-out war in Europe. In a speech delivered in April 1967, the defense minister betrayed a lack of confidence in the Soviet readiness to respond adequately to a West German assault on East Germany. In this regard he described the Bundeswehr as NATO's main attack force, but averred that Bonn had independent plans for a surprise conventional attack on East Germany. Withdrawal of Soviet forces from East Germany, Spychalski asserted, would be an essential prerequisite for such an attempt. Another variant of this plan was described by Spychalski in terms of a situation in which Soviet forces were still in East Germany, but in which "the conventional forces in West Germany of the West German-NATO structure are alleged to be superior to the Warsaw Pact forces in East Germany." According to this variant, which apparently would involve US and other allied forces stationed in East Germany along with FRG forces, the attack would proceed to the Oder-Neisse line, and the Warsaw Pact nations, faced with a *fait accompli*, "would not decide on a broad-scale armed intervention."



Annex

This annex presents the data used in the response to Question 3 and details certain calculations used to compare the Pact forces with the NATO Europe targets. Because of time constraints, the data this study is based on are generalized and not broken down as finely as would be desirable for a more thorough analysis of the problem. The greatest weaknesses are in the lack of specific information on (1) locations of the targets in NATO and (2) the relative importance of specific NATO targets within the broad categories listed. In certain instances where available US data on targets in NATO Europe were at great variance with our information on Pact views of these targets the US figures have been modified to bring them more in line with Pact conceptions. The operational factors and target acquisition factors used are from US sources and were intended for US systems; no similar information is available for Pact systems.

The Warsaw Pact Strategic Forces

The Warsaw Pact strategic forces are not range limited and are capable of strikes to the depth of the NATO Europe theater. Of the three elements of the strategic force--land based ballistic missiles, submarine launched missiles, and nuclear-capable aircraft--the first two elements are available for nuclear warfare only. There are 675 MRBMs, IRBMs, and ICBMs located opposite Western Europe which are estimated to be targeted against NATO Europe. Four G class ballistic missile submarines are estimated to have a peripheral strike mission with respect to NATO Europe. With three of these submarines capable of remaining on station at one time, a maximum of 9 missile launch tubes would be available for strikes against NATO Europe.

About 580 medium bombers from the Long Range Air Forces are stationed in the western USSR and



would be available for strikes against NATO. Of these, about 35 are assigned to reconnaissance, leaving 545 for nuclear strikes against NATO. About one-half of these are armed with ASMs and the other half with bombs. In a scenario where the war would begin with a conventional phase, one-third of the bombers--182--would be on quick reaction alert, leaving 363 for conventional strike missions.

Tactical Forces

Warsaw Pact tactical aircraft oriented against NATO Europe include all the IL-28 and YAK-28 light bombers and SU-7 fighter-bombers assigned to ground attack units. The MIG-15 and MIG-17 fighter-bombers are limited to conventional weapons. Other aircraft assigned to front air armies are used in their primary missions--either air defense or reconnaissance--and would participate in any air attacks in these missions.

The effective ranges of Pact tactical aircraft are calculated from a combination of combat radii with various bomb loads and flight profiles, using Pact planning factors for the distance behind the forward edge of the battle area (FEBA) at which the aircraft would be based. Generally, all Pact fighter-bombers are limited to a range of less than 300 km from the FEBA. Light bombers can reach up to 500 km from the FEBA and, under certain conditions, up to 800 km. To operate at a distance of 800 km, however, they would have to fly under optimum flight conditions at altitudes and speeds which would present the greatest danger of interception. Assuming, as the Pact does, an effective NATO air defense system, the ranges of the light bombers have been limited to 500 km for those options where no strategic forces are involved, and to 300 km--the limit from Pact doctrine--for those options in which strategic weapons are used.

For nuclear attack, the Pact would have 500 SU-7 fighter-bombers and 290 light bombers. During the

conventional phase, two-thirds of the SU-7s and the light bombers--those not on alert--would be available for attacks with conventional weapons, joined by 680 MIG-15s and MIG-17s.

Tactical rockets and missiles--comprising the various models of the FROG and Scud--are assigned to divisions, armies, and fronts. They all are limited to ranges of somewhat under 300 km from the FEBA. The tabulation below combines the maximum ranges of the various models of missiles with the distance behind the FEBA that they would be deployed, according to a Pact document:

<u>Missile</u>	<u>Max. range (km)</u>	<u>Distance behind FEBA (km)</u>	<u>Effective range (km)</u>
FROG-3	34	15-20	14-19
FROG-7	69	15-20	49-54
Scud A	148	40-60 (front)	88-108
Scud A	148	30-40 (army)	108-118
Scud B	296	40-60 (front)	236-256
Scud B	296	30-40 (army)	256-266

Although many Pact documents suggest that about one-third of the warheads allocated to tactical rockets and missiles would be chemical rather than nuclear, in Pact exercise scenarios the first strike of an operation almost invariably consists entirely of nuclear warheads. In estimating maximum first strike capabilities, therefore, it has been assumed that each launcher carries a missile with a nuclear warhead.

Warsaw Pact Nuclear Scenarios

In this study we have considered two scenarios for nuclear attack by the Warsaw Pact against NATO. One calls for the initiation of war with a nuclear attack, the other for a brief period of conventional war--usually about 3 days--followed by nuclear attack. Each of these options is then discussed both with and without the use of strategic weapons. A recently acquired document describes in detail planning for the

conventional phase, while several previously acquired documents deal with plans for the nuclear phase of the operations.

Initiation of War With a Nuclear Attack

This scenario includes an attack by all forces, strategic and tactical, to the maximum depth. The forces would include missiles of the Strategic Rocket Forces and the medium bombers of the Long Range Air Forces, in addition to tactical aircraft assigned to the fronts and tactical rockets and missiles of the ground forces. Pact doctrine generally envisages front weapons as being used against targets up to 300 kilometers from the FEBA, with strategic weapons responsible for the area beyond this zone and up to the limits of their range.

Warsaw Pact targeting emphasizes the destruction of NATO's nuclear delivery resources as the highest priority, but includes a full range of other military targets and resources plus cities, ports, administrative centers, and industrial areas. Front weapons would concentrate on the nuclear delivery systems within their range plus conventional troop concentrations and weapons. Strategic weapons would be targeted against, first, the nuclear delivery systems and, then, military logistic and support resources, cities, ports, and industrial areas.

The first massive strike would be followed by successive smaller strikes which would concentrate on targets missed during the first strike, newly discovered targets, and mobile targets moving forward.

Conventional War Followed by a Nuclear Attack

In this scenario, a phase of conventional warfare, generally lasting several days, is followed by a nuclear attack. All nuclear rockets and missiles

are kept on alert ready to respond to the expected transition to nuclear war. In addition, a portion of the LRA and about one-third of the nuclear delivery aircraft of the tactical air force will be kept on alert and will not participate in the conventional attacks.

In the conventional phase, with offensive strikes limited to medium bombers and to tactical aircraft not on alert, capabilities beyond the range of conventional ground forces are greatly limited. Doctrine indicates that during this phase the first priority of the air forces is the destruction of NATO airfields and other air resources. One recent document goes so far as to state that NATO nuclear delivery weapons other than airfields are not planned to be attacked during the conventional phase, except under optimum conditions and with unused resources. This seems to contradict older documents which give the highest priority to targets such as nuclear missile launchers and nuclear-capable artillery battalions. It is possible, however, that rather than reflecting Pact views of the actual relative worth of the targets, this plan indicates a realistic appraisal of the difficulties of acquiring deployed mobile targets on a timely basis.

The documents admit to a strain on air resources during the conventional phase, and emphasize the need to use all resources to their maximum capability. In the conventional phase, most of the air targets are reserved to the medium bombers of the LRA, while the front air forces are mainly responsible for penetrating NATO air defenses so that the bombers can reach their targets.

Although it is not possible to determine the number of front aircraft that would be required to penetrate the air defenses so that other aircraft could reach their targets, a recently acquired document states that fighter-bombers are capable of three sorties per day: one is to be used to attack NATO air targets, one to support

the ground forces, and one to open corridors through air defenses for the bombers.

Warsaw Pact Aircraft Available During
the Conventional Phase

1st condition: With use of LRA medium bombers--
front aircraft limited to a range
of 300 km from the FEBA

	<u>Distance from FEBA (km)</u>		
	<u>0-300</u>	<u>Over 300</u>	<u>Total</u>
Fighter-bombers	1,020	--	1,020
Light bombers	194	--	194
Medium bombers	--	363	363
<hr/>			
Total	1,214	363	1,577

2nd condition: Without LRA medium bombers--front
aircraft not limited to 300 km from
the FEBA

	<u>Distance from FEBA (km)</u>		
	<u>0-300</u>	<u>300-500</u>	<u>Total</u>
Fighter-bombers	1,020	--	1,020
Light bombers	--	194	194
<hr/>			
Total	1,020	194	1,214

Pact discussions of the use of conventional munitions note their relative ineffectiveness against airfields, and state that total destruction is almost impossible.

To destroy what they consider to be the high priority targets on an airfield, the Pact estimates a requirement for one attack by one regiment of fighter-bombers, or 36 aircraft. If aircraft other

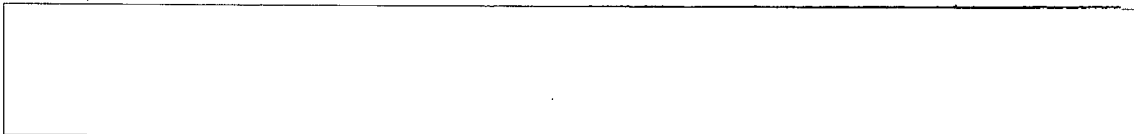


than fighter-bombers--or certain other types of fighter-bombers--are used, the number of aircraft required can be calculated as that number which can carry the same total bomb load as the regiment of fighter-bombers. With this condition, the Pact would envision the following requirements for the numbers of aircraft needed per airfield:

Fighter-bombers	18-36
Light bombers	12
Medium bombers	4

If the above factors are applied to total aircraft resources, and both fighter-bombers and light bombers are assumed capable of one sortie each against the airfields, the total capability in terms of the number of airfields attacked can be calculated. Assuming the ideal case--complete penetration of air defenses and no losses en route to targets--most airfields within range of the aircraft could be struck at least once, as indicated in the tabulation below.

	<u>Distance from FEBA (km)</u>			<u>Total</u>
	<u>0-300</u>	<u>300-500</u>	<u>Over 500</u>	
1st condition: number of strikes possible	45-72	-----91-----		136-163
2nd condition: number of strikes possible	28-56	16	0	44-72



Force Options

In calculating the size and distribution of the nuclear resources available to the Pact for an attack on NATO Europe, we have chosen the two scenarios: war



beginning with an initial nuclear strike, and war beginning with a conventional phase followed by a nuclear strike. Each scenario is further considered both with the use of strategic weapons and without the use of strategic weapons.* The forces have been employed in the zones specified in Pact planning documents, with one exception: in those options where strategic weapons are not used, the range of light bombers has been extended up to 500 km. In normal Pact nuclear planning--which invariably involves the use of strategic weapons--doctrine restricts light bombers to a range of 300 km.

It is important to note that there is no near distance restriction on the use of nuclear weapons--other than proximity to one's own troops--and any weapon can be used anywhere within its maximum range. Thus, for example, a deficiency of nuclear resources in the 0-25 km range could be made up from a surplus in the 100-300 km range.

In Options 2 and 4, both of which involve an initial conventional phase, the force has been calculated under the assumption that--as Pact doctrine states--two-thirds of the aircraft will be employed for the conventional mission and one-third will remain on quick reaction alert. Thus the total aircraft available for nuclear strikes would be only one-third of the number that would be available for an initial nuclear attack without a conventional phase. As a result of this assumption, Option 4--which also excludes strategic weapons--presents the "worst case" for Pact nuclear force capabilities. It is possible, of course, that sufficient time would be available to convert some number of the other two-thirds of the aircraft to a nuclear capability, thus increasing the overall nuclear force. (See table 1 on the next page.)

** In this context, "strategic weapons" includes those weapons normally planned to be used beyond a 300 km limit from the FEBA, i.e., MRBMs, IRBMs, medium bombers, and G class submarines. This is also the maximum range of tactical nuclear missiles.*



Table 1

Nuclear Delivery Systems Available to Warsaw Pact
Facing NATO Europe

Option 1: Initial nuclear strike--front weapons limited to 300 km--with use of strategic weapons

	Distance from FEBA (km)					Cumulative	
	0-25	25-100	100-300	300-500	Over 500	0-300	Total
Front missiles	187	293	333	--	--	813	813
Fighter bombers	--	--	504	--	--	504	504
Light bombers	--	--	290	--	--	290	290
Medium bombers	--	--	--	---	545 ---	--	545
Strategic missiles	--	--	--	---	684 ---	--	684
Total	187	293	1,127	--	1,229 --	1,607	2,836

Option 2: Nuclear attack after conventional phase--quick reaction alert forces only available for nuclear strike--front weapons limited to 300 km--with use of strategic weapons

	Distance from FEBA (km)					Cumulative	
	0-25	25-100	100-300	300-500	Over 500	0-300	Total
Front missiles	187	293	333	--	--	813	813
Fighter bombers	--	--	168	--	--	168	168
Light bombers	--	--	96	--	--	96	96
Medium bombers	--	--	--	---	182 ---	--	182
Strategic missiles	--	--	--	---	684 ---	--	684
Total	187	293	597	---	866 ---	1,077	1,943

Option 3: Initial nuclear strike--front weapons used to maximum range--without use of strategic weapons

	Distance from FEBA (km)					Cumulative	
	0-25	25-100	100-300	300-500	Over 500	0-300	Total
Front missiles	187	293	333	--	--	813	813
Fighter bombers	--	--	504	--	--	504	504
Light bombers	--	--	--	290	--	--	290
Total	187	293	837	290	--	1,317	1,607

Option 4: Nuclear attack after conventional phase--quick reaction alert forces only available for nuclear strike--front weapons used to maximum range--without use of strategic weapons

	Distance from FEBA (km)					Cumulative	
	0-25	25-100	100-300	300-500	Over 500	0-300	Total
Front missiles	187	293	333	--	--	813	813
Fighter bombers	--	--	168	--	--	168	168
Light bombers	--	--	--	96	--	--	96
Total	187	293	501	96	--	981	1,077

