

Why the Soviets Can't Win Quickly in Central Europe

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In light of the emergence of strategic parity and NATO's manifest lack of enthusiasm for tactical nuclear weapons, the importance of the balance of conventional forces in Central Europe has increased significantly in the past decade.¹ Regarding that balance, the conventional wisdom is clearly that the Warsaw Pact enjoys an overwhelming advantage. In the event of a conventional war, the Soviets are expected to launch a *blitzkrieg* that will lead to a quick and decisive victory.

The implications of this specter of a hopelessly outgunned NATO are significant. Certainly, NATO's behavior in a major crisis would be influenced by its view of the conventional balance. Furthermore, one's perception of the conventional balance directly affects his or her view of the importance of both strategic and tactical nuclear weapons for deterrence in Europe. *The New York Times*, for example, endorsed the controversial neutron bomb as a means to counter NATO's perceived inferiority at the conventional level.²

The fact of the matter is that the balance of conventional forces is nowhere near as unfavorable as it is so often portrayed to be. In fact, NATO's prospects for thwarting a Soviet offensive are actually quite good.³ Certainly, NATO

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1. Recognition of this is clearly reflected in the annual *Posture Statements* of the Secretaries of Defense for the past ten years. Also see: Helmut Schmidt's October 1977 speech before the International Institute for Strategic Studies, a copy of which can be found in *Survival*, Vol. 20, No. 1 (January/February 1978), pp. 2-10; and *White Paper 1979: The Security of the Federal Republic of Germany and the Development of the Federal Armed Forces* (Bonn: Federal Minister of Defence, September 4, 1979), p. 112, hereinafter cited as *1979 German White Paper*. Very importantly, the Soviets have also shown increased interest in the possibility of a conventional war in Europe. See Colonel Graham D. Vernon, *Soviet Options For War In Europe: Nuclear or Conventional?* National Security Affairs Monograph 79-1 (Washington D.C.: National Defense University, January 1979).

2. "The Virtues of the Neutron Bomb," Editorial, *The New York Times*, March 30, 1978, p. 32.

3. It should be noted that since the early 1960s there have been a handful of studies which have concluded that NATO has the capability to defend itself against a conventional attack by the

does not have the capability to *win* a conventional war on the continent against the Soviets. NATO does have, however, the wherewithal to *deny* the Soviets a quick victory and then to turn the conflict into a lengthy war of attrition, where NATO's advantage in population and GNP would not bode well for the Soviets.⁴

The aim of this article is to examine closely the Soviets' prospects for effecting a *blitzkrieg* against NATO. In analyzing this matter, two closely related issues must be addressed. First, one must determine whether the Soviets have the force structure, the doctrine, and the raw ability to implement this strategy. In other words, do the Soviets, when viewed in isolation, have the capacity to effect a *blitzkrieg*? Secondly, when NATO's defense capabilities and the theater's terrain are considered, what then are the prospects for Soviet success? It may very well be that the Soviet military is well-primed to launch a *blitzkrieg*, but that NATO in turn has the capability to thwart it.⁵

Any assessment of the NATO-Pact balance is dependent on certain as-

Warsaw Pact. See, for example, Alain C. Enthoven and K. Wayne Smith, *How Much Is Enough?* (New York: Harper and Row, 1971), chapter 4. In 1973, the *Washington Post* reported that "a major new Pentagon study," which had been "two years in the making," concluded that NATO could defend itself. See Michael Getler, "Study Insists NATO Can Defend Itself," *Washington Post*, June 7, 1973, pp. 1, 20. Since NATO has spent considerably more money on defense than has the Pact since 1973 (see former Secretary of Defense Harold Brown's FY 1982 *Posture Statement*, Appendix C-12, which is entitled "Comparison of NATO and Warsaw Pact Total Defense Costs") and since there have been no significant changes in the force levels of each side since 1973, there is no reason to believe that the conclusions of this study are outdated. Actually, Harold Brown's four *Posture Statements* (FY 1979-FY 1982) describe a situation where NATO stands a reasonable chance of thwarting a Warsaw Pact offensive without resorting to nuclear weapons. Such a viewpoint, however, is hardly commonplace.

4. There are a variety of other reasons why the Soviets would want to avoid a war of attrition. Obviously, they would not want to suffer the tremendous costs associated with a lengthy conventional war. Second, the Soviet Army is not configured for a long war. Although the Soviets could remedy this problem, the fact remains that they have not. Third, because of the Sino-Soviet split, the Soviets must consider the possibility of a war on two fronts. Even if there was not an imminent threat of war with China, a war of attrition in the West would threaten to weaken the Soviets to the point where they might think themselves vulnerable to a Chinese attack. Fourth, there is the real threat of unrest among the non-Soviet armies as well as the populations of the East European states, should the Pact find itself engaged in a bloody war. (See A. Ross Johnson et al., "The Armies of the Warsaw Pact Northern Tier," *Survival*, Vol. 23, No. 4 [July/August 1981], pp. 174-182.) Finally, there is the danger that nuclear weapons will be used if the Soviets do not win a quick and decisive victory. Also see fn. 65.

5. This study does not consider the impact of air forces on the balance. Although it is possible that NATO's airpower will not have the decisive influence on the land battle that many expect, it is clear that the air balance, when qualitative and quantitative factors are considered, does not favor the Pact. See Carnegie Panel on U.S. Security and the Future of Arms Control, *Challenges for U.S. National Security, Assessing the Balance: Defense Spending and Conventional Forces*, A Preliminary Report, Part II (Washington D.C.: Carnegie Endowment for International Peace, 1981), pp. 69-73.

sumptions made about the preparatory moves both sides take before the war starts. Among the many that might be considered, three scenarios are most often posited. The first of these is the "standing start" attack,⁶ in which the Soviets launch an attack after hardly any mobilization and deliver a knock-out blow against an unsuspecting NATO.⁷ This is not, however, a likely eventuality. First of all, without significantly improving the readiness of their standing forces, the Soviets would not have the capability to score a decisive victory. Instead, they would have to settle for capturing a portion of West German territory. Such a limited victory is hardly an attractive option.⁸ Secondly, for a war in Europe to become a realistic possibility, there would have to be a significant deterioration in East-West relations. Given such a development, it is very likely that both sides will take some steps, however limited, to increase the readiness of their forces. It is difficult to imagine a scenario where an alert Pact catches NATO completely unprepared.

6. The two most prominent examples of this viewpoint are General Robert Close, *Europe Without Defense?* (New York: Pergamon, 1979) and U.S., Congress, Senate Armed Services Committee, *NATO and the New Soviet Threat*, report by Senators Sam Nunn and Dewey F. Bartlett, 95th Cong., 1st Sess. (Washington D.C.: GPO, January 24, 1977), hereinafter cited as *Nunn-Bartlett Report*. For the best critique of this scenario, see Les Aspin, "A Surprise Attack On NATO: Refocusing the Debate," a copy of which can be found in *Congressional Record*, February 7, 1977, pp. H911-H914.

7. It should be emphasized that, given NATO's intelligence-gathering capabilities, the Pact would not be able to mobilize its forces in any significant way without being detected—thus taking away the element of surprise. Therefore, the notion of "an immense blitzkrieg preceded by little warning" (*Nunn-Bartlett Report*, p. 16) or a "gigantic operation [that] would have the advantage of complete surprise" (Robert Close, "The Feasibility of a Surprise Attack Against Western Europe," study prepared for the NATO Defense College, February 24, 1975) is unrealistic. A massive surprise attack is a contradiction in terms.

8. With an attack from a standing start, the Soviets would not be able to employ all of the Pact's 57½ standing divisions. Undoubtedly, they would rely on the 19 Soviet divisions stationed in East Germany and the 5 Soviet divisions stationed in Czechoslovakia. However, they probably would not upgrade these divisions significantly prior to an attack for fear that this would tip off NATO. Given that non-Soviet divisions in the Pact are three-quarters or less manned and that alerting them of a forthcoming offensive might lead to a security breach, it is highly unlikely that these forces would be used for a surprise attack. This would leave the Pact with 24 Soviet divisions, which would be striking against NATO's 28 divisions. The 24:28 ratio would shrink even further if translated into either armored division equivalents or divisional manpower. Although NATO's forces would not be in their forward positions in this scenario, the Pact would still have to defeat these forces to gain a decisive victory. This is hardly likely given the balance of forces that attend this scenario and the fact that the Pact would not overrun NATO's forces at the outset of this conflict. Instead, a majority of NATO's forces would be located behind their forward defensive positions, where they would have ample time to identify the Pact's main thrusts. A number of analysts point out that such a short-warning attack will invariably result in a limited victory. See, for example, Aspin, "A Surprise Attack On NATO," pp. H912-H913; Alain Enthoven, "U.S. Forces In Europe: How Many? Doing What?" *Foreign Affairs*, Vol. 53, No. 3 (April 1975), pp. 517-518; and General James H. Polk, "The North German Plain Attack Scenario: Threat or Illusion?" *Strategic Review*, Vol. 8, No. 3 (Summer 1980), pp. 60-66.

The second scenario is a more realistic and more dangerous one. Here, in the midst of a crisis, NATO detects a Pact mobilization, but does not mobilize its forces for a fear of triggering a Soviet attack.⁹ Surely, if NATO fails to respond quickly to a Pact mobilization as posited in this second scenario, the Pact would soon be in a position to inflict a decisive defeat on NATO.

In the third scenario, NATO's mobilization begins immediately after the Pact starts to mobilize. Here, the Pact does not gain an overwhelming force advantage as a result of NATO's failure to mobilize. It is with this third scenario that I shall concern myself in the present essay. The focus will thus be on a conflict in which both sides are alerted and where neither enjoys an advantage as a result of the other's failure to mobilize.

This is not to deny that strategic warning and especially the political decision to mobilize are important issues. They certainly are and they will have a significant influence on the outcome of any future conflict in Europe. The assumption on which I base the following analysis is that strategic warning and mobilization are acted upon by NATO; the raw capabilities of the opposing forces will thus be examined under those clearly defined conditions.

Before directly assessing Soviet prospects for launching a successful *blitzkrieg*, we must examine briefly the balance of forces on the Central Front and the doctrines of the two sides.

The Balance of Forces on the Central Front

The Pact has 57 $\frac{1}{3}$ divisions located in Central Europe, while NATO has 28 $\frac{1}{3}$, giving the Pact slightly more than a 2:1 advantage in divisions.¹⁰ Comparing

9. For an excellent discussion of this matter, see Richard K. Betts, "Surprise Attack: NATO's Political Vulnerability," *International Security*, Vol. 5, No. 4 (Spring 1981), pp. 117-149. Also see his "Hedging Against Surprise Attack," *Survival*, Vol. 23, No. 4 (July/August 1981), pp. 146-156.

10. These figures are taken from Robert L. Fischer, *Defending the Central Front: The Balance of Forces*, Adelphi Paper No. 127 (London: IISS, 1976), p. 8. Fischer's calculations are based on the assumption that the Pact has 58 $\frac{1}{3}$ divisions in Central Europe. Actually, the Soviets recently removed a division from East Germany, leaving 57 $\frac{1}{3}$ divisions. Since the Soviets have increased the size of their remaining divisions somewhat and since my argument does not rest on precise calculations (see fn. 20), this minor discrepancy raises no problems. Regarding the balance of divisions on the Central Front, also see James Blaker and Andrew Hamilton, *Assessing the NATO/Warsaw Pact Military Balance* (Washington D.C.: Congressional Budget Office, December 1977) and *The Military Balance, 1980-1981* (London: IISS, 1980). Although the Fischer and Blaker/Hamilton studies are somewhat dated, there have been no shifts in the force levels on either side which would alter the figures in these studies in any significant way. It should be noted

numbers of divisions, however, gives a distorted view of the balance, since this measure does not account for the significant differences, both qualitative and quantitative, among each nation's divisions. There are generally two alternative ways of assessing the balance. One is to focus on the manpower on each side, while the other is to compare weaponry.¹¹

MANPOWER

Robert Lucas Fischer, in his 1976 study of the conventional balance in Europe (which is, unfortunately, one of the few comprehensive studies done on that subject), notes that NATO has 414,000 men in its divisions, while the Pact has 564,000.¹² With this measure of divisional manpower, the Soviet advantage shrinks to 1.36:1. Fischer calculates that when overall manpower levels on the Central Front are considered, the Pact's advantage shrinks even further to 1.09:1. This is because NATO has traditionally had more men assigned to combat units which are not organic to divisions. Since the study was issued, the Pact has added approximately 50,000 men, raising the overall advantage in manpower to 1.15:1—hardly an alarming figure.¹³ In the British Government's recent *Statement on Defence Estimates, 1981*, the Soviets are given an advantage in overall manpower of 1.2:1.¹⁴ Under the category of "soldiers in fighting units," the Soviets are again given a 1.2:1 advantage. These figures are clear evidence that NATO is not hopelessly outnumbered.¹⁵

that throughout this article, French forces are counted in the NATO totals. Regarding this assumption, see 1979 *German White Paper*, p. 118.

11. It should be emphasized that the available data base on the conventional balance is a relatively primitive one. Certainly, there are a number of simple assessments where, for example, numbers of tanks or numbers of divisions are counted. There are, however, very few comprehensive studies of the balance in which analysts attempt to examine the balance of forces in a detailed manner. This is especially true with regard to weaponry. There is an acute need for studies which attempt to look at all the weapon systems on each side, and at all of the various indexes by which their effectiveness is measured, and then make some overall judgment about the balance. This article will not attempt such a net assessment of forces on the European front. Its purposes are, rather, more limited: to rebut on their own terms the many critics who claim that NATO's numerical inferiority has made it hopelessly vulnerable to defeat by a Soviet *blitzkrieg*.

12. See Fischer, *Defending the Central Front*, pp. 10–15.

13. This increase has been reflected in the annual *Military Balance*. Also see Robert Shishko, *The European Conventional Balance: A Primer*, P-6707 (Santa Monica, Calif.: Rand Corporation, November 24, 1981), p. 18.

14. Quoted in Shishko, *ibid.*, p. 18.

15. It should be noted that if the entire French Army were counted, instead of just the French forces stationed in West Germany, NATO forces *would* outnumber Pact forces. See Blaker and Hamilton, *Assessing the NATO/Warsaw Pact Military Balance*, p. 11.

Perhaps the most important problem with comparing manpower levels, however, is that it does not account for weaponry.

WEAPONS

It is not difficult to compare numbers of specific weapons on each side. For example, the Pact has approximately a 2.5:1 advantage in tanks and about a 2.8:1 advantage in artillery.¹⁶ Such comparisons, however, do not take into account qualitative differences within the same category of weapons (i.e., NATO's artillery is significantly better than Pact artillery); nor do they deal with the problem of comparing different categories of weapons (i.e., tanks vs. artillery). To counter this problem, the Defense Department has devised a system of weighing weapons within the same category as well as across different categories.¹⁷ Three principal characteristics of each weapon are considered: mobility, survivability, and firepower. Using this system, the Defense Department weighs all the weaponry in every division on the Central Front and then arrives at a composite figure, known as armored division equivalents (ADEs), for both NATO and the Warsaw Pact. Unfortunately, the number of armored division equivalents on each side is classified. Very importantly, however, the ratio is not. Looking at standing forces, the Pact has a 1.2:1 advantage.¹⁸ Again, it is clear that NATO is not hopelessly outnumbered.

REINFORCEMENT AND MOBILIZATION

Now, consider the critical matter of comparative reinforcement capabilities. Although NATO's reinforcement capability is not as great as the Soviets' in an absolute sense, NATO has the potential to keep the overall ratio of forces very close to the pre-mobilization ratio. The notion that the Soviets can rely

16. These figures are from Shishko, *The European Conventional Balance*, p. 18.

17. For further discussion of the concept of armored division equivalents, see Blaker and Hamilton, *Assessing the NATO/Warsaw Pact Military Balance*; and U.S. Army Concepts Analysis Agency, *Weapon Effectiveness Indices/Weighted Unit Values (WEI/WUV)*, Study Report CAA-SR-73-18 (Bethesda, Maryland: U.S. Army Concepts Analysis Agency, April 1974).

18. Regarding the balance of armored division equivalents, see Pat Hillier, *Strengthening NATO: Pomcus and Other Approaches* (Washington D.C.: Congressional Budget Office, February 1979), pp. 53-57; and Pat Hillier and Nora Slatkin, *U.S. Ground Forces: Design and Cost Alternatives for NATO and Non-NATO Contingencies* (Washington D.C.: Congressional Budget Office, December 1980), pp. 23-24. It should be noted that this figure was calculated on the basis of 58½ Pact divisions and not 57½ divisions (see fn. 10). Also, it is not possible to ascertain whether NATO and Pact non-divisional assets have been incorporated into this 1.2:1 ratio. If not, the ratio would shift further in NATO's favor when they were added to the balance.

on some massive second echelon that NATO cannot match is a false one. However, the ratio of forces in any future mobilization will be heavily influenced by the timeliness with which each side starts to mobilize. If NATO begins mobilizing its forces before the Pact does, or simultaneously with the Pact, then the force ratios will remain close to the 1.2:1 (in armored division equivalents) and 1.36:1 (in divisional manpower), the ratios which obtained before mobilization.¹⁹ If NATO starts mobilizing a few days after the Pact, then the balance of forces should approach but not exceed a 2:1 ratio in the very early days of mobilization and then fall to a level close to the pre-mobilization ratios. But once the gap in mobilization starting times reaches seven days (in the Pact's favor), NATO begins to face serious problems, problems which become even more pronounced as the mobilization gap widens further. As noted, the assumption here is that NATO starts mobilizing immediately after the Pact, thus ensuring that the overall force ratios never reach 2:1, and, in fact, remain reasonably close to the pre-mobilization ratios.

NUMBERS AND STRATEGY: THE CRITICAL CONNECTION

It should be emphasized that there are definite limits to the utility of measuring force levels. After all, even a cursory study of military history would show that it is impossible to explain the outcome of many important military campaigns by simply comparing the number of forces on each side. Nevertheless, it is clear that if one side has an overwhelming advantage in forces, that glaring asymmetry is very likely to lead to a decisive victory. In essence, the larger force will simply overwhelm the smaller one as, for example, the Germans did against the Poles in September 1939. The previous analysis of the balance of forces in Europe indicates that the Soviets do not enjoy such an overwhelming advantage. They do not have the numerical superiority to simply crush NATO. In a conventional war in Europe, whether or not the Soviets prevail will depend on how they employ their forces against NATO's defenses. In other words, success will be a function of strategy, not overwhelming numbers. This is not to deny that the Soviets would be better

19. See Fischer, *Defending the Central Front*, pp. 20–25 and Hillier, *Strengthening NATO*, pp. 53–57. Also see Hillier's more recent study (*U.S. Ground Forces*), where he makes the highly questionable assumption that the Soviets will have 120 divisions in Central Europe after 30 days. Even then, the overall ratio of armored division equivalents never exceeds 2:1 (see p. 24 of his study). In fact, at its peak, the ratio for the 120 division figure is 1.7:1.

served with an overall advantage in armored division equivalents of 1.8:1 rather than, say, 1.2:1. But regardless of which ratio obtains, ultimate success will turn on the issue of strategy. More specifically, success will depend on the Soviets' capability to effect a *blitzkrieg*.²⁰

Doctrine

NATO's forces are divided into eight corps sectors which are aligned in layer-cake fashion along the inter-German border (see Figure 1).²¹ There are four corps sectors each in Northern Army Group (NORTHAG) and Central Army Group (CENTAG). There are also German and Danish forces located in Schleswig-Holstein, which is adjacent to the northern portion of the Central Front.

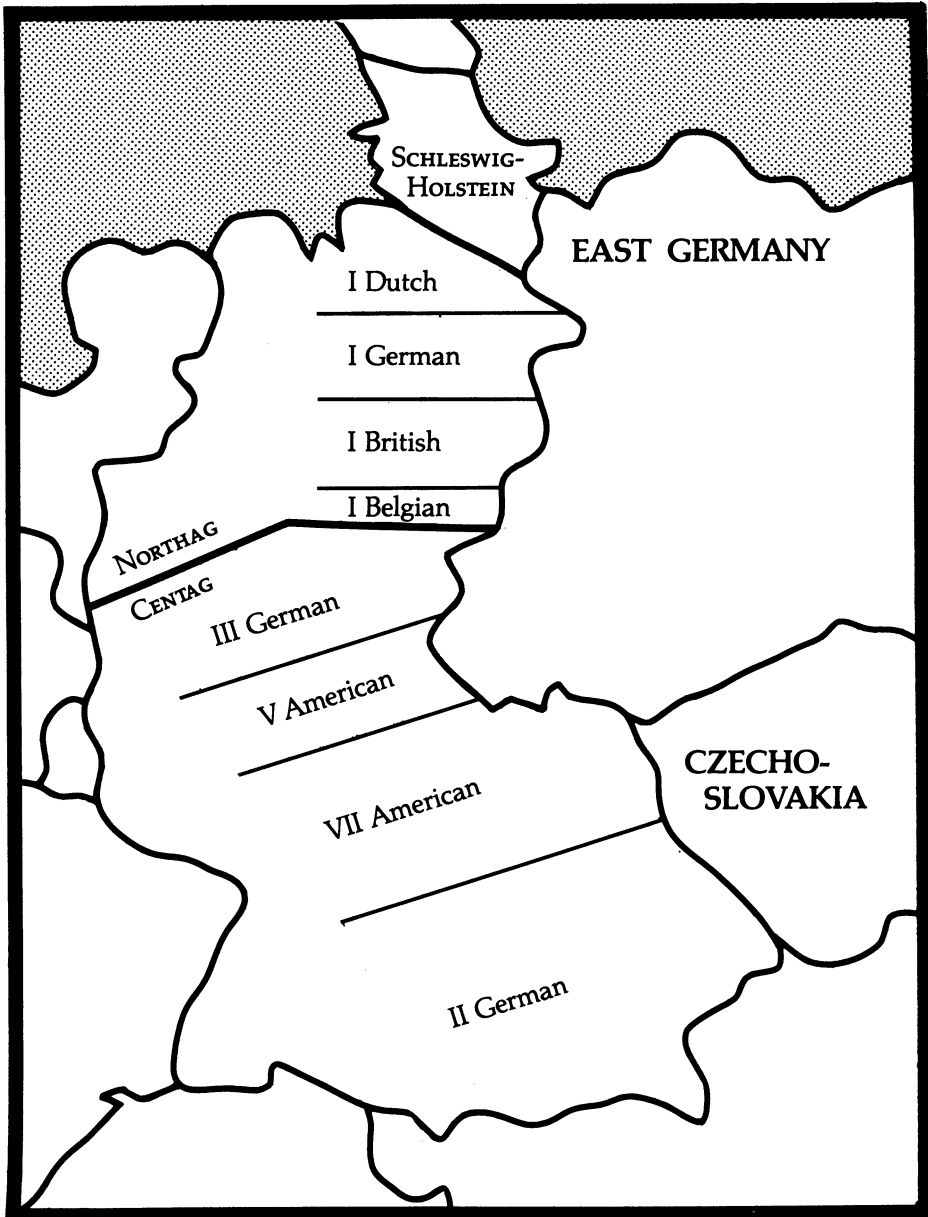
NATO's forces are arrayed to support a strategy of forward defense. In other words, to meet a Pact offensive, the forces in each of NATO's corps sectors are deployed very close to the border between the two Germanies. The objective is to meet and thwart an attack right at this boundary. Political as well as military considerations dictate the choice of this strategy. A number of defense analysts in the West, however, argue that NATO's chances of thwarting a Pact attack are negligible as long as NATO employs a forward defense. They claim that the Soviets can mass their forces at points of their choosing along NATO's extended front, achieve overwhelming force ratios, and then blast through NATO's forward defense. It would then be very easy to effect deep strategic penetrations, since NATO has few reserves which could be used to check the Soviets' armored spearheads. These analysts favor a maneuver-oriented defense.²² The subsequent discussion will address the charge that NATO's strategy of forward defense is fundamentally flawed.

20. This discussion of the importance of strategy highlights the key point that my argument does not depend on precise calculations about the balance of forces. In other words, whether or not the balance of armored division equivalents is 1.2:1 or 1.3:1 is not, in and of itself, of great consequence. Of course, there is no doubt, as just noted in the text, that there is an important difference between a balance of 1.2:1 and 1.8:1. See the discussion in fns. 33 and 61.

21. A corps normally controls from 2–3 divisions as well as a number of non-divisional assets. In NATO, corps are comprised of forces from only one nation.

22. For a discussion of the views of the maneuver advocates, see my "Maneuver, Mobile Defense, and the NATO Central Front," *International Security*, Vol. 6, No. 3 (Winter 1981/1982), pp. 104–122.

Figure 1. NATO Corps Sectors West Germany



SOVIET BLITZKRIEG STRATEGY

How do the Soviets plan to fight a non-nuclear war in Europe? What, in other words, is their doctrine for fighting a conventional war? Western analysts often assume that the Soviets have a neatly packaged doctrine for fighting a conventional war. As will become evident, this is not the case. The assumption here is that they will employ a *blitzkrieg*.²³ This strategy calls for the attacker to concentrate his armored forces at one or more points along the defender's front, pierce that front, and race deep into the defender's rear. The aim is to avoid a broad frontal attack and, instead, to drive a small number of powerful armored columns into the depths of the defense. Although it may be necessary to engage in a set-piece battle to accomplish the initial breakthrough, a high premium is placed on avoiding further battles of this sort and, instead, following the path of least resistance deep into the opponent's rear. Of course, the tank, with its inherent flexibility, is the ideal weapon for implementing such a strategy.

The *blitzkrieg* is predicated upon the assumptions that the defender's army is geared to fighting along a well-established defensive line, and that the defender has a vulnerable communications network located in its rear. This network would be comprised of numerous lines of communication, along which move supplies as well as information, and key nodal points which join these various lines. Destruction of this central nervous system is tantamount to destroying the army. The attacker, therefore, attempts to pierce the defender's front and then drive *deep* into the defender's rear, severing lines of communication and destroying key junctures in the communications network as he proceeds.

Although the Soviets do not use the term *blitzkrieg*, it is clear that they pay serious attention to the question of how to effect a *blitzkrieg* against NATO. They continually emphasize the importance of massing large tank forces on narrow fronts, breaking through NATO's forward defenses, and then racing deep into NATO's rear so as to bring about the rapid collapse of NATO's forces. Furthermore, the Soviets have shown considerable interest in studying the lessons of their 1945 offensive against the Japanese Army in Man-

23. Despite the frequency with which the term *blitzkrieg* is used, there is no systematic study of this military strategy. It will be discussed at length in my forthcoming book, *The Theory and Practice of Conventional Deterrence*. Also see B.H. Liddell Hart, *Memoirs*, Vol. 1 (London: Cassell, 1967), pp. 64-65; HDv 100/100, *Command and Control* (Bonn: Ministry of Defence, September 1973), chapter 27; and Edward N. Luttwak, "The Operational Level of War," *International Security*, Vol. 5, No. 3 (Winter 1980/1981), pp. 67-73.

churia.²⁴ That operation was a classic *blitzkrieg*. Although the focus here is on the Soviets' capability to effect a *blitzkrieg*, there is an alternative strategy that the Soviets might employ. They could employ their forces as they did against the Germans on the Eastern Front in World War II.²⁵ Instead of relying on deep strategic penetrations to bring about the collapse of the German Army, Soviet strategy called for wearing the German Army down by slowly pushing it back along a broad front. Massive firepower is the key ingredient in this strategy of attrition.

There is no doubt that the Soviets want to use a *blitzkrieg* strategy in any future war in Europe. There is, however, growing doubt in the Soviet Union as to whether this is possible on the modern battlefield.²⁶ This matter has been debated at length in Soviet military journals. Despite such attention, apparently no clear consensus has emerged on this issue. The important question, which will be addressed later, is: what effect does this doctrinal uncertainty have on the Soviets' ability to effect a *blitzkrieg*?

Soviet Prospects for Effecting a Blitzkrieg in Central Europe

By choosing a forward defense strategy, NATO has effectively determined that a war in Europe will be won or lost along the inter-German border. It is thus imperative that NATO thwart the Pact in those initial battles along the border. This point is clearly reflected on the opening page of *FM 100-5*, which spells out basic U.S. Army doctrine: "the first battle of our next war

24. See John Despres, Lilita Dzirkals, and Barton Whaley, *Timely Lessons of History: The Manchurian Model for Soviet Strategy*, R-1825-NA (Santa Monica, Calif.: Rand Corporation, July 1976); Lilita I. Dzirkals, "Lightning War" In *Manchuria: Soviet Military Analysis Of The 1945 Far East Campaign*, P-5589 (Santa Monica, Calif.: Rand Corporation, January 1976); and Peter Vigor and Christopher Donnelly, "The Manchurian Campaign and Its Relevance to Modern Strategy," *Comparative Strategy*, Vol. 2, No. 2 (1980), pp. 159-178.

25. For a good description of Soviet strategy against Germany, see Erich von Manstein, "The Development of the Red Army, 1942-1945," in *The Soviet Army*, ed. B.H. Liddell Hart (London: Weidenfeld and Nicolson, 1956), pp. 140-152.

26. See Christopher N. Donnelly's very important article, "Tactical Problems Facing the Soviet Army: Recent Debates in the Soviet Military Press," *International Defense Review*, Vol. 11, No. 9 (1978), pp. 1405-1412. This article challenges the widely held belief that the Soviets have developed a well-knit strategy for defeating NATO (see the sources cited in fn. 79 for evidence of this belief). Also see A. A. Grechko, *The Armed Forces Of The Soviet Union*, trans. Yuri Sviridov (Moscow: Progress Publishers, 1977), p. 160; Phillip A. Karber, "The Soviet Anti-Tank Debate," *Survival*, Vol. 18, No. 3 (May/June 1976), pp. 105-111; V. Kulikov, "Soviet Military Science Today," *Strategic Review*, Vol. 5, No. 1. (Winter 1977), pp. 127-134; and Vigor and Donnelly, "The Manchurian Campaign."

could well be its last battle. . . . the U.S. Army must, above all else, *prepare to win the first battle of the next war.*"²⁷ If the Soviets win those initial battles and penetrate with large armored forces deep into NATO's rear, NATO's fate is sealed, since it has neither the reserve strength necessary to counter such penetrations, nor the strategic depth which would allow for retreat and the establishment of a new front.

To determine whether the Soviets can successfully launch a *blitzkrieg* against NATO's forward defense, two key questions must be answered. First, can the Soviets achieve the necessary force ratios on their main axes of advance so that they can then open gateways into NATO's rear? In other words, given the deployment of NATO's forces as well as the terrain, how likely is it that the Soviets will be able to repeat the German achievement opposite the Ardennes Forest in 1940? Is it true, as advocates of a maneuver-oriented defense claim, that the Pact can choose any point on the NATO front and achieve the superiority of forces necessary to effect a breakthrough? The answer to these questions will largely be determined by matching NATO's deployment pattern, which is well known, against those deployment patterns which would most likely be used as part of a Soviet *blitzkrieg*.

Second, if the Soviets are able to tear open a hole or two in NATO's defensive front, will the Soviets be able to exploit those openings and penetrate into the depths of the NATO defense before NATO has a chance to shift forces and slow the penetrating spearheads? Effecting a deep strategic penetration in the "fog of war," when the defender is doing everything possible to seal off the gaps in his defense, is difficult and requires a first-rate army. How capable is the Soviet Army of accomplishing this difficult task? Although it is not possible to provide definitive answers to these questions, there is good reason to believe that NATO is capable of thwarting a Soviet *blitzkrieg* and turning the conflict into a war of attrition.

THE INITIAL DEPLOYMENT PATTERNS

When considering Soviet deployment patterns for a conventional European war, the most basic question is: how will the Soviets apportion their forces across the front? More specifically, will the Soviets disperse their forces rather evenly across the front, mounting attacks along numerous axes, or will they concentrate their forces at one, two, or three points along the inter-German

27. *FM 100-5: Operations* (Washington D.C.: Department of the Army, July 1, 1976), p. 1-1.

border? In many of the accounts by Western analysts, it is assumed that a Soviet offensive will be a multi-pronged one. For example, John Erickson expects that they will attempt "eight to ten breakthrough operations."²⁸ In effect, NATO will be faced with numerous attacks across its entire front. Equally important, it is frequently assumed that the Soviets will achieve overwhelming superiority in forces on *each* of these avenues of attack.

It is possible that the Soviets might choose to launch an offensive along multiple axes of advance. This would be consistent with their doctrine for fighting a nuclear war in Europe, where the emphasis is on keeping the attacking forces widely dispersed so that they are not vulnerable to nuclear attacks. However, such a deployment pattern would hardly facilitate employment of a *blitzkrieg*, simply because it would be virtually impossible for the Soviets, given the present overall balance of forces, to achieve overwhelming force ratios on any of the axes. This can be demonstrated by looking at a *hypothetical* but realistic model of the Central Front.

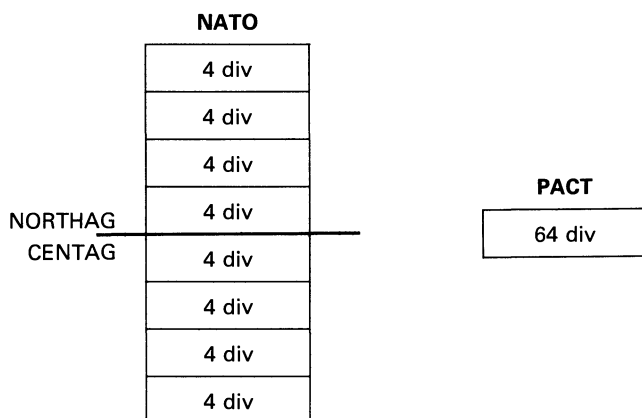
Let us assume that the Pact has 64 armored division equivalents while NATO has 32; in other words, the Pact has a 2:1 force advantage across the front.²⁹ Furthermore, assume that the Soviets plan to employ a multi-pronged attack, aiming to strike along six main axes. In keeping with the dictates of a forward defense, NATO divides its 32 divisions evenly among its eight corps sectors (see Figure 2). It is usually assumed that to overwhelm the defense, an attacking force needs more than a 3:1 advantage in forces on the main axes of advance; assume, then, in the first instance, that the Soviets decide that they require a 5:1 advantage.³⁰ They would therefore need 20

28. John Erickson, "Soviet Breakthrough Operations: Resources and Restraints," *Journal of the Royal United Services Institute*, Vol. 121, No. 3 (September 1976), p. 75. Also see the scenario described by John Hackett et al., *The Third World War: A Future History* (London: Sidgwick and Jackson, 1978), p. 127.

29. It should be emphasized that in light of the balance of standing forces in Central Europe (1.2:1 in terms of armored division equivalents) and the fact that NATO has the capability to match the Pact as it brings in reinforcements, this 2:1 force advantage is a conservative figure. Unless otherwise specified, the unit of measurement in all subsequent discussion of force ratios is armored division equivalents.

30. The Soviets emphasize the importance of achieving overwhelming superiority on the main axes of advance in a conventional war. See V. Ye. Savkin, *The Basic Principles of Operational Art and Tactics* (Moscow, 1972), trans. U.S. Air Force (Washington D.C.: GPO, 1976), pp. 119–152, 201–229 and A.A. Sidorenko, *The Offensive: A Soviet View* (Moscow, 1970), trans. U.S. Air Force (Washington D.C.: GPO, 1976), chapter 1. Based on the lessons of World War II, the Soviets estimate that "a decisive superiority . . . [is] 3–5 times for infantry, 6–8 times for artillery, 3–4 times for tanks and self-propelled artillery, and 5–10 times for aircraft." Sidorenko, p. 82. These ratios are consistent with the American Army's view on the matter. See *FM 100-5*, p. 3-4.

Figure 2. Initial Distribution of NATO Divisions



divisions per axis, which would allow them only three main axes of advance³¹ (see Figure 3). Moreover, they would be quite vulnerable to NATO in the remaining five corps sectors.

If we assume that the Soviets require only a 4:1 advantage on the main axes, they would then need 16 divisions per axis. This would allow them only four main axes; however, they would not have any forces left with which to defend the remaining corps sectors (see Figure 4). If the Soviets were to aim for the projected six axes, they would be able to place approximately ten divisions on each main axis (see Figure 5). This would give them a force ratio on each axis of 2.5:1, which is hardly satisfactory in light of the widely recognized assumption that an attack requires more than a 3:1 ad-

31. This *hypothetical* model is based on the important assumption that the Soviets can only place one main axis in each corps sector. As will become evident in the subsequent discussion, the terrain features along the inter-German border force the attacker to think in terms of a single axis per corps sector. Moreover, in light of the length of the various NATO corps sectors and the length of front the Soviets allot their attacking divisions and armies, it is most likely that the Soviets would locate only one axis in each corps sector. For a discussion of Soviet attack frontages, see Christopher Donnelly, "The Soviet Ground Forces," in *The Soviet War Machine*, ed. Ray Bonds (New York: Chartwell, 1976), pp. 166–170; John Erickson, "Soviet Theatre-Warfare Capability: Doctrines, Deployments and Capabilities," in *The Future of Soviet Military Power*, ed. Lawrence L. Whetten (New York: Crane, Russak, 1976), p. 148; and fn. 58 and the attendant text of this article.

Figure 3. Distribution of Forces When Soviets Desire 5:1 Advantage

		NATO		PACT
NORTHAG CENTAG		4 div	←	20
		4 div	←	1
		4 div	←	20
		4 div	←	1
		4 div	←	20
		4 div	←	1
		4 div	←	1
		4 div	←	0

vantage on each main axis to succeed. Obviously, the more axes you have, the smaller the advantage you achieve on each axis. Finally, the point is reached, in this case with eight main axes of advance, where the distribution of forces on each axis is the same as the overall 2:1 ratio (see Figure 6).

It is apparent from this *hypothetical* model that as long as NATO keeps the overall force ratio under 2:1, it is impossible for the Soviets to have 6–10 axes

Figure 4. Distribution of Forces When Soviets Desire 4:1 Advantage

		NATO		PACT
NORTHAG CENTAG		4 div	←	16
		4 div	←	0
		4 div	←	16
		4 div	←	0
		4 div	←	16
		4 div	←	0
		4 div	←	16
		4 div	←	0

a wide front, does not have to concern itself with shifting forces to counter massive concentrations of force by the Pact. From NATO's perspective, a multi-pronged attack results in a propitious meshing of the offensive and defensive deployment patterns.³²

If the Pact does choose to employ a multi-pronged attack, it will, at best, end up pushing NATO back across a broad front, similar to the way the Soviets pushed the Germans westward across Europe in World War II. This is not a *blitzkrieg*, but a strategy of attrition. If the Soviets hope to defeat NATO with a *blitzkrieg*, they will have to concentrate massive amounts of armor on one, two or, at most, three major axes of advance. This raises the obvious questions: where are those axes likely to be? and how well-positioned is NATO to deal with the most likely Pact deployment patterns? More specifically, are NATO's forces positioned so that they can: first, stymie the initial onslaughts on the various potential axes of advance; and secondly, provide the time for NATO to move reinforcements to threatened positions, and, in effect, erase the temporary superiority in forces that the Pact has achieved by massing its forces at specific points?³³ These questions are best answered by closely examining, corps sector by corps sector, both the terrain and the deployment of NATO's forces.

32. Frequently, the claim is made that the Soviets will monitor progress along the various axes and move second-echelon armies (those forces moving up from the Western Soviet Union) onto the axes where they are making the most progress. This is hardly conducive to effecting a *blitzkrieg*. First, NATO will also be moving its reinforcements onto those same axes since that is where the Pact is threatening a breakthrough. Moreover, it takes time to move second-echelon forces into an attacking position, time during which NATO will make important adjustments. A *blitzkrieg*, by effecting a rapid breakthrough and then immediately exploiting it, seeks to deny the defender the time to make such adjustments. Finally, the divisions in the Pact's second-echelon armies will not be the Pact's most capable divisions. The 26 divisions in Central Europe, and specifically the 19 Soviet divisions in East Germany, are the best divisions in the Pact. They will have to make the key breakthroughs and conduct the deep strategic penetrations. The second-echelon armies may be of crucial importance in a war of attrition, but they will not play a major role in a *blitzkrieg*.

33. The assumption here is that, even if the Pact has only a small overall force advantage, it can still establish a significant superiority on at least one axis. NATO must then shift its forces so as to re-establish the overall balance at the points of main attack before the Pact is able to effect a deep strategic penetration. When one considers that it is widely accepted that the attacking forces need more than a 3:1 advantage at the points of main attack (see fn. 30 and the attendant text), and that the overall balance will be significantly less than 3:1, one sees that NATO will be in excellent shape if it has the capability to stop the initial onslaughts and then shift NATO forces to threatened points. Some analysts argue that, if the overall balance of forces is greater than 1.5:1, NATO's chances of accomplishing this task will be slim. See Hillier, *Strengthening NATO*; Hillier and Slatkin, *U.S. Ground Forces*, chapter 2; and James Schlesinger's *FY 1976 and 1977 Posture Statement*, p. III-15. See also the discussion of this matter in fn. 61.

It is most unlikely that the Pact would place a major axis of advance in either the far north or the far south of the NATO front. In the south, this would preclude a major attack against II German Corps, simply because it would not result in a decisive victory. The Allies could afford to lose almost the entire corps sector, reaching back to the French border, and they would still be able to continue the war. Moreover, the mountainous terrain in this part of Germany is not conducive to the movement of large armored forces. In the north, a major offensive against Schleswig-Holstein is unlikely. Although the terrain is not mountainous in this sector there are still enough obstacles (bogs, rivers, urban sprawl around Hamburg) to hinder the movement of a large armored force. Furthermore, a Pact success in this region would not constitute a mortal blow to NATO. The main body of NATO's forces would still be intact and capable of conducting a vigorous defense.

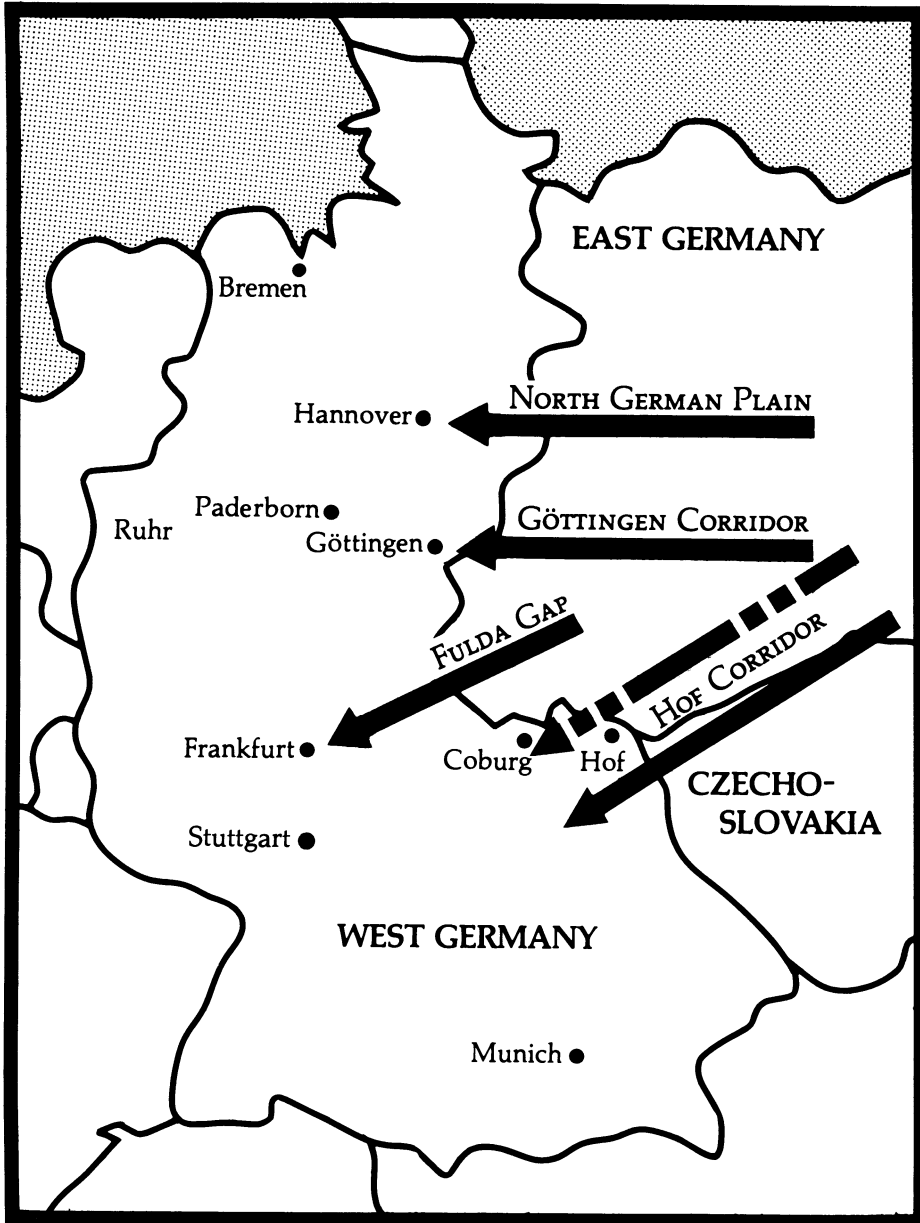
CHANNELING FORCES: THE PACT'S AXES OF ATTACK IN CENTAG

The Soviets are most likely to locate their main attacks along the front stretching from the I Dutch Corps Sector in the north to the VII American Corps Sector in the south. Let us first consider the three key corps sectors in CENTAG (III German, V U.S., and VII U.S.). Generally, the terrain in the CENTAG area is very obstacle-ridden. Besides being a mountainous region, it has numerous rivers and forests. Consequently, there are a small number of natural avenues of attack in CENTAG. Actually, there are three potential axes on which the Soviets are likely to attack.

The most threatening of the three possibilities would be an attack from the Thuringian Bulge through the Fulda Gap, aimed at Frankfurt (see Figure 7). Except for the Fulda River, the terrain on this axis should not greatly hinder the movement of large armored forces. Importantly, this axis cuts across the "wasp-waist" or the narrowest section of Germany. The distance from the inter-German border to Frankfurt is a mere 100 km. Frankfurt, because of its central location in Germany's communications network, would be a most attractive target. Capturing Frankfurt would effectively cut Germany in half, and given the importance of north-south lines of communication, would leave NATO's forces in southern Germany isolated.

The second potential axis of advance is located in the sector covered by the III German Corps. The attacking forces would move through the Göttingen Corridor, just south of the Harz Mountains. The industrialized Ruhr is located due west of Göttingen. Although the terrain on the western half of this axis (between Paderborn and the Ruhr) is suitable for the large-

Figure 7. Most Likely Axes of Advance in a Warsaw Pact Attack Against NATO



scale employment of tanks, the terrain on the eastern half of the axis, which the attacker must traverse first, is not obstacle-free. There are a number of forests in the region, and the attacking forces would have to cross the Leine River and then the Weser River.

There is a third potential axis of advance in CENTAG, although it is less attractive than the axes which run through the Fulda Gap and the Göttingen Corridor. This axis runs from Bohemia through the area around the city of Hof toward Stuttgart: the Hof Corridor.³⁴ The terrain that an attacking force would have to traverse there is considerably more obstacle-ridden than the terrain along the other axes. Moreover, Stuttgart is a far less attractive target than either Frankfurt or the Ruhr. Aside from these three axes, there are no attractive alternatives.

NATO's forces in CENTAG should be able to contain a major Soviet attack in this region. There are only a limited number of potential axes of advance, each of which is quite narrow and well defined and each of which NATO is well prepared to defend. Moreover, NATO has contingency plans to shift forces to combat Soviet efforts designed to achieve overwhelming force ratios at the points of main attack.³⁵ NATO's prospect of successfully halting a Soviet attack are further strengthened by the terrain, which not only limits the number of potential axes, but also channels the attacking forces across the width of Germany. In other words, the potential axes of advance are rather narrow and do not allow the attacker to spread his forces after the initial breakthrough.³⁶ In 1940, once the Germans crossed the Meuse River, they came upon the open, rolling plains of northeastern France, which was ideal terrain for armored forces. This would not be the case in CENTAG, where the attacking forces would be canalized by terrain throughout their movement across Germany. This should contribute to NATO's prospects for stopping a Soviet penetration before a decisive blow can be landed.

Another reason for optimism is that the NATO corps sectors in CENTAG

34. This axis could be shifted somewhat by moving the axis of advance 50 km to the west of Hof, toward the city of Coburg. Therefore, one could argue that there are actually two potential axes of advance in the U.S. VII Corps Sector.

35. Furthermore, given the sophisticated intelligence-gathering devices in the service of NATO forces, it should be possible to locate the Pact's main forces as they move to concentrate for the attack. Certainly, NATO should know where to look for Soviet troop concentrations.

36. It should be noted, however, that the Göttingen Corridor only covers the eastern half of West Germany. (It is approximately 100 km in length.) To the west of Paderborn, the terrain is open and generally well suited for armored warfare.

are manned by German and American Forces, which are the best in NATO.³⁷ Furthermore, there are reinforcements in CENTAG. The United States has pre-positioned materiel for two divisions in CENTAG's rear.³⁸ Also, French and Canadian forces (three small French armored divisions and one Canadian brigade) are located in CENTAG and can serve as an operational reserve for this half of NATO's defense.³⁹

THE NORTH GERMAN PLAIN: OPEN ROAD FOR A PACT ADVANCE?

Now, consider NATO's prospects for containing a Soviet attack directed against NORTHAG. It is widely held that NATO is more vulnerable in this region than in CENTAG. The terrain in NORTHAG, because it is not mountainous and covered with forests, is generally held to be more favorable to the movement of large armored formations. Frequent reference is made to the suitability of the North German Plain for a *blitzkrieg*.⁴⁰ Secondly, there are doubts about whether the Dutch and the Belgians, and even the British, have the capability to withstand a Soviet attack. There is only one German Corps Sector in NORTHAG and there is no U.S. Corps Sector, although pre-positioned materiel for a U.S. Corps, which will serve as an operational reserve for NORTHAG, is being deployed near Bremen.⁴¹ Notwithstanding

37. In terms of the quality of the fighting forces, it is widely recognized among NATO military leaders that the German Army is the best in Europe, the Soviets included. Regarding equipment, the German and American Armies are the best equipped in NATO.

38. This equipment for U.S. forces is commonly referred to as POMCUS (pre-positioned materiel configured to unit sets). In a crisis, the United States will fly the designated units (only the troops) to Europe, where the necessary equipment will be waiting for them. POMCUS solves the difficult problem of rapidly transporting a unit's equipment across the Atlantic. A POMCUS division is expected to be ready to fight 10 days after mobilization. For a discussion of POMCUS, see Hillier, *Strengthening NATO*.

39. It should be noted that the Germans are in the process of significantly upgrading the fighting capability of their Territorial Army. The core of this force is six armored infantry brigades, although there are numerous other units (including six more armored infantry brigades) which are being upgraded. See 1979 *German White Paper*, pp. 154-156.

40. For example, see Close, *Europe Without Defense?*, p. 172; John M. Collins, *U.S.—Soviet Military Balance* (New York: McGraw-Hill, 1980), pp. 312-314; Hackett et al., pp. 101-102; and Richard D. Lawrence and Jeffrey Record, *U.S. Force Structure in NATO* (Washington D.C.: The Brookings Institution, 1974), p. 28. For an excellent discussion of this matter, which directly challenges this view, see Polk, "The North German Plain Attack Scenario."

41. This corps will comprise three divisions. It is important to note that only two brigades will actually be stationed in Europe. These two brigades will serve as forward elements for two of the divisions, the remainder of which will be flown in from the U.S. All of the third division will be stationed in the United States. The POMCUS (see fn. 38) for one of these three divisions is in place. The POMCUS for the remaining two is presently being deployed (see FY 1983 *Posture Statement*, pp. III-96-III-97). The presence of these three POMCUS divisions in NORTHAG, plus

that NATO is more vulnerable in this region than in CENTAG, the prospects for thwarting a major Soviet attack in NORTHAG are quite good. The terrain is not obstacle-free by any means and, as will become clear, the Belgian and Dutch Corps Sectors are not the weak links that they are often said to be.

NORTHAG covers a front of only 225 km while CENTAG defends a front that is more than two times as long (500 km).⁴² Appropriately, the corps sectors in NORTHAG are smaller than those in CENTAG. The I Belgian Corps occupies the southernmost and smallest sector in NORTHAG, measuring only 35 km. Approximately one-third of the front is covered by the Harz Mountains, while the terrain throughout the depth of the corps sector is laden with obstacles. Belgium's two divisions, small as they are, are adequate for defending this short front in the initial stages of an attack.⁴³ Although it is unlikely that the Pact would place a main axis through this corps sector, if it did, forces from the III German Corps, immediately to the south, could be moved north to reinforce the Belgians, and forces from the U.S. Corps in reserve could be moved forward.

The North German Plain, above the Belgian Corps Sector, is covered by the I British and I German Corps. There is widespread agreement that the Pact will place a single main axis against NORTHAG and that that axis will be located on the North German Plain. Although there are no mountains and few forests in this region, there are obstacles in both the German and British Corps Sectors. In the British Corps Sector, there is significant urban sprawl centered on Hannover, which is located in the heart of this corps sector.⁴⁴ Armored forces simply will not be able to move rapidly through those urban

the two POMCUS divisions in CENTAG, highlights how important it is that NATO begin mobilizing its forces immediately in a crisis.

42. Polk, "The North German Plain Attack Scenario," p. 61. It is somewhat difficult to reach a precise agreement on these distances because one can measure either: the actual contour of the inter-German border; the straight-line distance of the corps sector front; or some combination of the two.

43. The matter of force-to-space ratios will be discussed later in greater detail. It is generally agreed that a brigade can hold a front of 7-15 km (see fn. 52 and the attendant text). Since the Belgians have four brigades in their corps sector (a good portion of which is covered by the Harz Mountains), they should be able to hold 35 km of front long enough for NATO to bring in reinforcements.

44. See Paul Bracken, "Urban Sprawl and NATO Defence," *Survival*, Vol. 18, No. 6 (November/December 1976), p. 256; and *FM 100-5*, p. 14-17. The Soviets are fully cognizant of the difficulties of conducting offensive operations in urban areas. See C.N. Donnelly, "Soviet Techniques for Combat in Built up Areas," *International Defense Review*, Vol. 10, No. 2 (1977), pp. 238-242. For a general discussion of the terrain in NORTHAG, see Polk, "The North German Plain Attack Scenario," pp. 61-62.

areas that NATO chooses to defend. Since urbanization continues in this area, it will become increasingly difficult, if not impossible, to avoid large-scale urban fighting in the event of war. There are also a number of rivers in the British sector. The terrain in the I German Corps Sector, on the other hand, is covered, in large part, by the Lüneberger Heath, which is a formidable impediment to the rapid movement of masses of armor. It is for this reason that the North German Plain is usually identified with the British Corps Sector.

The British Army of the Rhine (BAOR) is comprised of four small divisions, a force that is adequate for covering the 70 km corps sector front.⁴⁵ There are, however, 13 brigades—or four and one-third formidable divisions—in the I German Corps Sector.⁴⁶ Aside from the fact that these German forces are more than adequate for defending their assigned corps sector, they can be rapidly moved to the south to augment the BAOR and, of course, they can also move northward to help the Dutch. This contingent in the I German Corps Sector represents the largest concentration of forces in all of the sectors. Given its central location in NORTHAG as well as the excellent north-south lines of communication in that region, this force is a formidable instrument for thwarting a Pact attack across the North German Plain.⁴⁷ Furthermore, there will be an American Corps, part of which is already deployed, in NORTHAG's rear.⁴⁸ In sum, NATO *has* the wherewithal to deal with a Pact attack across the North German Plain.

Finally, there is the Dutch Corps Sector, which is manned by two Dutch divisions. Should the Soviets place a main axis through this sector, the Dutch

45. There are the equivalent of seven brigades in the BAOR. Assuming that a brigade can cover a front of 7–15 km (see fn. 52 and the attendant text), the BAOR should be able to hold its front long enough for NATO to bring in reinforcements.

46. Furthermore, those 13 brigades are ten percent "over strength." Daniel Schorr, "The Red Threat And NATO Today," *Norfolk Virginian-Pilot*, October 2, 1978, section 1, p. 19. Also see Polk, "The North German Plain Attack Scenario," p. 61.

47. The German forces are divided among three corps sectors and Schleswig-Holstein. None of these sectors are adjacent to each other (see Figure 1), which means that the Germans, by bumping forces up or down the line, can move German brigades into every non-German corps sector on the front. When an attacking force executes a *blitzkrieg*, the attacker's flanks are usually vulnerable. The Soviets would have to keep in mind that if they penetrate into the rear of a non-German corps, the Germans will undoubtedly drive into their exposed flanks, attempting to sever the penetrating forces from their base.

48. Furthermore, German units from CENTAG can be moved to NORTHAG. See Ulrich de Mazière, *Rational Deployment of Forces on the Central Front*, Study Prepared for the Western Economic Union, April 2, 1975, p. 40. There are also the forces in the German Territorial Army (see fn. 39), a portion of which will undoubtedly be assigned to NORTHAG in a conflict.

forces, like their British and Belgian counterparts, should be capable of defending their front in the initial stages of the conflict. Then, forces from the adjacent I German Corps can be moved north to assist the Dutch. Moreover, the American Corps will be located directly to the rear of the Dutch Sector. The terrain within the Dutch Corps Sector is not conducive to the rapid movement of armored forces. In addition to the Elbe River, which forms the inter-German border in this sector, a number of other rivers, canals, and bogs are liberally sprinkled throughout this sector. The Lüneberger Heath, which is such a prominent feature in the adjacent I German Corps Sector, extends northward across the Dutch Sector. To add to the woes of the attacker, there is significant urban sprawl around Bremen and Bremerhaven.⁴⁹ Finally, even if the attacking forces were able to penetrate through this sector rapidly, it is unlikely that NATO would be mortally wounded. Certainly, NATO would feel the loss of the ports in northern Germany. However, since the attacking forces would exit Germany into the northern part of the Netherlands, NATO would still have access to the most important Belgian and Dutch ports.

FORCE-TO-SPACE RATIOS

There are a number of additional points concerning Soviet and NATO deployment patterns that merit attention. The discussion has so far focused on the matter of the Pact's achieving overwhelming superiority on specific axes of advance. However, when examining prospects for a breakthrough at the point of main attack, one cannot simply focus on the *balance* of forces. It is also necessary to consider *force-to-space ratios*, or the number of divisions that the defender requires to *hold* a specific sector of territory.⁵⁰ If a defender can comfortably hold 100 km with four divisions, then even if the attacker has 24 divisions, that attacker will have to sacrifice a significant number of his 24 divisions before he finally wears the defender down to the point where he can effect a penetration. Obviously, this would be a time-consuming as well as a costly process, during which the defender can bring in reinforcements. There is an important factor which complicates the attacker's task in such a situation: the "crossing the T" phenomenon.⁵¹ Simply put, there is not

49. See Bracken, "Urban Sprawl and NATO Defence," p. 256 and *FM 100-5*, p. 14-17.

50. For an excellent discussion of this concept, see B. H. Liddell Hart, *Deterrent or Defense* (New York: Praeger, 1960), chapter 10.

51. Although originally a naval concept (see George Quester, *Offense and Defense in the International System* [New York: John Wiley, 1977], p. 92), "crossing the T" also applies to land warfare.

enough room for the attacker to place all of his 24 divisions at the point of attack. He must therefore locate a portion of his divisions in subsequent echelons behind the attacking forces, where their impact on the battlefield will be minimal while the first echelon is engaged. In essence, the defender is in the enviable position of being able to deal with the attacker's forces on a piecemeal basis. How do these abstract considerations relate to the European Central Front?

It is generally agreed that a brigade can hold a front approximately 7–15 km long.⁵² With 7 km, which is obviously the more desirable figure, a brigade should be able to hold its position for an extended period of time before it needs reinforcement. As the figure approaches 15 km, the defender should be able to cope with the initial onslaughts without any problem. However, it will be necessary to bring in reinforcements after a day or so since the attacker's forces will have begun to wear down the defender by then. Since the length of the NORTHAG front is 225 km, if one assumes that each brigade could hold 15 km, then a minimum of 15 brigades would be needed to cover the front. There are actually 30 brigades within the four NORTHAG corps sectors.⁵³ Given that there are 30 brigades and a 225 km front, this means that each brigade will have to cover 7.5 km, which is extremely close to the most desirable force-to-space ratio for a brigade.

Now, let us assume that NATO deploys its 30 brigades along the NORTHAG front in the traditional "two brigades up, one back" configuration. This would leave 20 brigades to cover 225 km (each brigade would have to cover 11 km), with 10 brigades in immediate reserve. This leaves NATO in very good shape. Two other important points are in order. First, because there are a number of obstacles along the NORTHAG front, NATO would

52. Regarding the optimum number of km which a brigade can hold, it is difficult to come up with an exact figure. This is because such a force-to-space ratio varies according to the size and quality of the forces on each side as well as the nature of the terrain. Recognizing that this problem exists, it is generally estimated that a brigade can hold 7–15 km of front. These figures are based on discussions with American, German, and Israeli military officers as well as: J. R. Angolia and Donald B. Vought, "The United States Army," in *The U.S. War Machine*, ed. Ray Bonds (New York: Crown, 1978), p. 74; Hillier and Slatkin, *U.S. Ground Forces*, p. 25; Liddell Hart, *Deterrent or Defense*, chapter 10; Hans-Joachim Löser, "Vorneverteidigung der Bundesrepublik Deutschland?" *Osterreichische Militärische Zeitschrift*, Vol. 18, No. 2 (March/April 1980), p. 121; and U.S. Army Training and Doctrine Command, *Division Restructuring Study*, Phase 1 Report, Executive Summary, Vol. 1, Fort Monroe, VA, March 1, 1977, p. 3.

53. There are: 6 brigades in the I Dutch Corps Sector; 13 brigades in the I German Corps Sector; the equivalent of 7 brigades in the I British Corps Sector; and 4 brigades in the I Belgian Corps Sector. These figures are from de Mazière, "Rational Deployment of Forces," pp. 11–12.

not have to worry about covering every section of the 225 km front. Second, the American Corps in NORTHAG's rear, when fully operational, will provide an additional nine brigades. Also, there are at least six armored infantry brigades in the German Territorial Army that could be assigned to NORTHAG.⁵⁴ In short, NORTHAG does not have force-to-space problems.⁵⁵

The length of the CENTAG front is 500 km. Assuming 15 km per brigade, 33 brigades would be required to cover this front. NATO has 33 brigades in the four CENTAG corps sectors, a figure which is hardly alarming in light of the obstacle-ridden terrain along this portion of the NATO front and the fact that the brigades in these corps sectors are the heaviest in NATO and therefore will have the least amount of trouble covering 15 km of front.⁵⁶ Furthermore, there are 21 brigades (including the French, but not including the German territorials) available for reinforcement in CENTAG's rear.⁵⁷

"CROSSING THE T" IN EUROPE

Consider briefly the "crossing the T" phenomenon, which further highlights the problems that the Soviets will have breaking through NATO's forward positions. In one of the U.S. Army's standard scenarios for a major Soviet attack against one of the two U.S. Corps Sectors in CENTAG, a Soviet force of five divisions is pitted against two American divisions.⁵⁸ In the opening battle, three Soviet divisions attack across about 40 to 50 km of front against

54. See the discussion of the German Territorial Army in fn. 39.

55. It should be noted that after a lengthy mobilization involving both sides, NATO's position, regardless of what the overall balance of forces looked like, would be extremely favorable on force-to-space ratio grounds. In other words, with regard to having adequate forces to cover the entire front, NATO's position, which is favorable before mobilizing, improves even more as large numbers of additional forces are moved to the Central Front.

56. There are: 7 brigades in the III German Corps Sector; 7 brigades in the V U.S. Corps Sector; 7 brigades in the VII U.S. Corps Sector; and 12 brigades in the II German Corps Sector. These figures are from de Mazière, *ibid.*, pp. 12-13.

57. Also, given the nature of the terrain along the inter-German border in CENTAG, NATO would not have to be very concerned with protecting sizeable segments of the front. The 21 brigades include a Canadian brigade and 3 French divisions (6 brigades) stationed in West Germany as well as 2 American-based divisions (6 brigades) with POMCUS in CENTAG and 4 French divisions (8 brigades) stationed in France.

58. See U.S., Congress, Senate Armed Services Committee, *Hearings on Department of Defense Authorization for Appropriations for Fiscal Year 1981 (Part 5)*, 96th Cong., 2nd Sess. (Washington D.C.: GPO, 1980), pp. 3053-3078. It should be noted that the Americans would actually have two and one-third divisions, not two divisions, in each of their corps sectors. This discrepancy is a result of the fact that the armored cavalry regiment that would be in each corps sector is not counted in this scenario.

two U.S. divisions.⁵⁹ The remaining two Soviet divisions are held in immediate reserve. Thus, in that opening battle the ratio of forces directly engaged is 3:2 in the Pact's favor, not 5:2. (It should be noted that these ratios would be even more favorable to NATO if they were translated into armored division equivalents.) Of course, the key question is: can those three Soviet divisions so weaken the two American divisions that the remaining two Soviet divisions will be able to effect a breakthrough? In this regard, the matter of force-to-space ratios is of crucial importance. Since two divisions, or six brigades, are defending 40–50 km, each of these powerful American brigades will be holding approximately 7 km. Without a doubt, the Soviets would have a great deal of difficulty penetrating that American front.

Now, let us assume that the Soviets start with ten or even fifteen divisions, instead of the five employed in the above scenario. Only a very few of these additional divisions could be placed at the point of main attack, simply because there would be limited room on the front to accommodate them. They would have to be located *behind* the attacking forces, where they would have little impact on the initial battles.⁶⁰ Certainly, the forces in each NATO corps sector should be capable of blunting the initial Soviet attack and providing adequate time for NATO to shift forces from other corps sectors and its operational reserves to threatened points along the front.⁶¹

59. It should be noted that these three attacking divisions would not be spread out evenly across the 40–50 km of front. They would concentrate at specific points along that front.

60. The Soviets could attempt to spread their forces out and attack across a broad front. However, this would lead to serious problems. First of all, the terrain along the inter-German border is such that the natural avenues of attack are relatively narrow and well defined. Second, and more importantly, once the attacking forces are spread out, the key principle of concentrating forces on narrow fronts to effect a breakthrough is violated. Not surprisingly, all evidence indicates that the Soviets intend to concentrate their attacking forces on narrow fronts, placing large numbers of their divisions in echelons behind the main body of attacking divisions. (See the sources cited in fns. 31 and 72.) It should be noted that over the past decade the United States has devoted considerable attention to developing weaponry specifically designed to attack second and third echelon forces. (See, for example, the discussion in the document cited in fn. 58.)

61. It was noted in fn. 33 that a number of defense analysts argue that NATO must prevent the overall ratio of forces on the Central Front from exceeding 1.5:1 in the Pact's favor. Once this occurs, it becomes easier for the Pact to achieve overwhelming force advantages at specific points along the front. Although it is certainly desirable to keep that overall ratio at 1.5:1 or less, it seems clear from the foregoing discussion that even if the overall ratio reaches 2:1 (which is *certainly* a worst case assumption, with NATO mobilizing immediately after the Pact) and the Pact thus achieves overwhelming superiority on two or three axes, NATO should be able to hold at those points of main attack long enough to allow NATO to shift its forces and establish ratios at these points that reflect the overall 2:1 ratio. However, it is clear that NATO would

In sum, given the initial deployment patterns of both NATO and the Pact, it appears that NATO is reasonably well deployed to meet a Soviet *blitzkrieg*. Although both Pact and NATO deployment patterns have been examined, attention has been focused, for the most part, on examining NATO's capability to thwart a *blitzkrieg*. Now let us shift the focus and examine, in detail, Soviet capabilities.

Soviet Capabilities for Blitzkrieg Warfare

To ascertain whether the Soviet Army has the capacity to effect a *blitzkrieg*, it is necessary to examine that Army on three levels. First, one must consider how the Soviet Army is organized. In other words, are the forces structured to facilitate a *blitzkrieg*? Second, it is necessary to consider doctrine, a subject that has already received some attention. Finally, there is the matter of raw skill. Assuming that the problems with force structure and doctrine are minimal, is the Soviet Army capable of performing the assigned task? There are, of course, no simple answers to these questions. They are nonetheless extremely important questions which have received little serious attention in the West, where it is all too often assumed that the Soviets have only strengths and no weaknesses.

Since almost all the Pact divisions that would be used in a European war are either armored or mechanized infantry, it seems reasonable to assume that the Pact is appropriately organized to launch a *blitzkrieg*. On close inspection, however, there are potential trouble spots in the Pact's force structure. Over the past decade, Soviet divisions have become extremely heavy units. Western analysts pay a great deal of attention to the large and growing number of tanks, infantry fighting vehicles, artillery pieces, rocket launchers, surface-to-air missiles, air defense guns, anti-tank guided missiles (ATGMs), and assorted other weapons that are found in Soviet as well as other Pact divisions.⁶² Past a certain point, however, there is an inverse relationship between the mass and the velocity of an attacking force. As the size of the attacking force increases, the logistical problems as well as the command and control problems increase proportionately. Then, it becomes very difficult to

have significant problems should the overall ratio surpass 2:1. See *FY 1982 Posture Statement*, p. 74.

62. See, for example, Richard Burt, "Soviet Said To Add To Its Bloc Troops," *The New York Times*, June 8, 1980, section 1, p. 4.

move that force rapidly—an *essential* requirement for a *blitzkrieg*, where the attacker is seeking to strike deep into the defender's rear before the defender can shift forces to deal with the penetrating forces. Although the notion is perhaps counterintuitive, bigger divisions are not necessarily better divisions when an attacking force is attempting to effect a *blitzkrieg*.⁶³

Consider now the matter of doctrine. As noted earlier, it is not possible to determine exactly how the Soviets plan to fight a conventional war in Europe. This is because the Soviets themselves are not sure; there is presently doctrinal uncertainty in their military circles. Certainly, they continue to emphasize the necessity of rapidly defeating NATO, should a war in Europe break out. The Soviets recognize, however, that it is becoming increasingly difficult to do this, especially because of the proliferation of ATGMs.⁶⁴ Moreover, they are well aware of how these organizational problems compound their task. They realize that it will be difficult to effect deep strategic penetrations against prepared defenses.⁶⁵ Although there has been a considerable effort to find a solution to this problem, if anything, the Soviets appear to be moving closer to a strategy of attrition. This is reflected in their growing reliance on artillery and dismounted infantry.⁶⁶ There is no evidence that the Soviets have made a conscious decision to fight a war of attrition. Instead, it appears that they are being inexorably drawn in this direction by their

63. See the comments of the former German General Balck on this matter in General William E. DePuy, *Generals Balck and von Mellenthin On Tactics: Implications For NATO Military Doctrine*, BDM/W-81-077-TR (McLean, VA: The BDM Corporation, December 19, 1980), pp. 46–48.

64. See the sources cited in fn. 26, especially Donnelly's "Tactical Problems," which examines in detail Soviet thinking on strategy and tactics in a European land war. Also see his "Soviet Tactics for Overcoming NATO Anti-Tank Defenses," *International Defense Review*, Vol. 12, No. 7 (1979), pp. 1099–1106. For a general discussion of ATGMs and the *blitzkrieg*, see my "Precision-guided Munitions and Conventional Deterrence," *Survival*, Vol. 21, No. 2 (March/April 1979), pp. 68–76.

65. Christopher Donnelly writes, "[I]f the victory is not achieved quickly, the Russians believe, no meaningful victory can be achieved at all. It is not surprising, therefore, that Soviet officers have applied themselves to the problem of how to ensure their rapid rate of advance in war. . . . What is of particular interest is that no single straightforward answer to this problem has yet emerged and that it is still the subject of intense discussion." Donnelly, "Tactics for Overcoming," p. 1099. He then goes on to say that, "In general, their identification and dissection of the problem is excellent. Their suggestions as to what should be done usually appear quite sound, but are often tinged with lack of confidence or an excess of bland enthusiasm, hiding uncertainty. Sometimes they are contradictory in detail." *Ibid.*, p. 1100.

66. See Christopher Donnelly, "Modern Soviet Artillery," *NATO's Fifteen Nations*, Vol. 24, No. 3 (June–July 1979), pp. 48–54; Donnelly, "Tactical Problems"; Donnelly, "Tactics for Overcoming"; and Karber, "Anti-Tank Debate."

efforts to neutralize the growing firepower, both ground-based and air-delivered, available to NATO.

BLITZKRIEG AND THE NUCLEAR BATTLEFIELD

The Soviets continue to pay serious attention to the possibility that NATO will use nuclear weapons. Thus, they devote much time to training for a nuclear war which, by their own admission, would be fundamentally different from a conventional war and would require a different doctrine. For example, unlike a *blitzkrieg*, where the armor is concentrated in massive formations, the armor would be widely dispersed across the front so as not to present NATO with lucrative targets for her nuclear weapons.⁶⁷ Moreover, given the firepower provided by nuclear weapons, piercing NATO's front would not *require* the high concentration of forces that is necessary to achieve that objective in a conventional conflict. This highlights the point that the role of artillery would be greatly diminished on a nuclear battlefield. The upshot of this is that the time and resources the Soviets spend on preparing their forces to fight a nuclear war are time and resources that could be spent training those forces to fight a conventional war. In a crisis, the Soviets will be faced with an acute dilemma: whether to prepare their forces for a nuclear war or a conventional war. In this regard, NATO's plethora of tactical nuclear weapons serves a valuable purpose. The nuclear-conventional dichotomy aside, the Soviets still have not found a satisfactory strategy for fighting a conventional war. As long as they are not confident that they have a sound doctrine for inflicting a rapid and decisive defeat on NATO, the Soviets are not likely to initiate conflict in a crisis.

SOVIET TRAINING AND INITIATIVE

Finally, there is the question of whether the Soviet Army has the necessary raw skills. An army that intends to implement a *blitzkrieg* must have a highly flexible command structure as well as officers and NCOs at every level of the chain of command who are capable of exercising initiative.⁶⁸ A *blitzkrieg* is

67. See Savkin, *The Basic Principles of Operational Art and Tactics*, chapter 3. Also see V.D. Sokolovskiy, *Soviet Military Strategy*, ed. Harriet Fast Scott, 3rd ed. (New York: Crane, Russak, 1968).

68. These distinguishing characteristics are readily apparent in both the Israeli and German armies. See Dan Horowitz, "Flexible Responsiveness and Military Strategy: The Case of the Israeli Army," *Policy Sciences*, Vol. 1, No. 2 (Summer 1970), pp. 191-205; DePuy, *Generals Balck*

not a steamroller: success is ultimately a consequence of able commanders making rapid-fire decisions in the "fog of battle" which enable the attacking forces to make the crucial deep strategic penetrations. Should the Soviets attack NATO, there is a chance that the Soviets will open a hole or holes in the NATO front. Naturally, NATO will try to close those holes and seal off any penetrations as quickly as possible. The key question is: can the Soviets exploit such opportunities before NATO, which is well prepared for such an eventuality, shuts the door? In this battle, the crucial determinant will not be how much firepower the Soviets have amassed for the breakthrough; success will be largely the result of highly skilled officers and NCOs making the decisions that will enable the armored spearheads to outrun NATO's defenses. A *blitzkrieg* depends on split-second timing since opportunity on the battlefield is so fleeting.

There is substantial evidence that Soviet officers and NCOs are sadly lacking in individual initiative and, furthermore, that the Soviet command structure is rigid. Christopher Donnelly notes:

It is hard for a western officer to appreciate what a difficult concept [initiative] this is to reconcile with a normal Soviet upbringing. There has never been a native Russian word for initiative. The idea of an individual initiating unilateral action is anathema to the Soviet system. The Soviet army has always considered as one of its strengths its iron discipline and high-level, centralised command system combined with a universal tactical doctrine. The run-of-the-mill officer, particularly a sub-unit officer, has never had to do other than obey orders.⁶⁹

The Soviets are keenly aware of the need for initiative and flexibility, and they go to great lengths to stress the importance of these qualities in their military journals.⁷⁰ These are not, however, attributes which can be willed into existence. Their absence is largely the result of powerful historical forces.⁷¹ Fundamental structural change in Soviet society and the Soviet

and von Mellenthin on Tactics, pp. 16-23, 54-55; Erich Von Manstein, *Lost Victories* (Chicago: Regnery, 1958), pp. 63, 284; and *HDv 100/100* (especially p. 10-2).

69. Christopher Donnelly, "The Soviet Soldier: Behavior, Performance, Effectiveness," in *Soviet Military Power and Performance*, ed. John Erickson and E.J. Feuchtwanger (Hamden, Conn.: Archon Books, 1979), p. 115. Also see Joshua M. Epstein, "Soviet Confidence and Conventional Deterrence in Europe," *Orbis*, Vol. 26, No. 4 (Spring 1982).

70. Interestingly, Donnelly notes that when the Soviets discuss the problem of achieving a quick victory on the battlefield, "Not infrequently, the panacea of 'initiative' is invoked as a *deus ex machina*." Donnelly, "Tactics for Overcoming," p. 1100.

71. See Norman Stone, "The Historical Background of the Red Army," in Erickson and Feuchtwanger, *Soviet Military Power and Performance*, pp. 3-17.

military would be necessary before there would be any significant increase in flexibility and initiative.

Certainly analysts in the West argue that the Soviets have obviated this problem by relying on "steamroller tactics at the divisional level." Steven Canby, one of the leading proponents of this view, writes:

Steamroller tactics, at the divisional level, are characterized by a relatively inflexible command system and a rigid system of echeloned forces. . . . As formations are exhausted by fighting they are replaced rapidly by other echelons. . . . By maintaining momentum with large numbers of formations, Soviet forces plan to saturate enemy defences and offset the need for flexibility and initiative at the company level, where their tactics tend to be rigid. Having large numbers available gives higher commanders considerable flexibility.

Combat divisions and *even armies* can be used like drill tips on a high-speed drill—to be ground down and replaced until penetration occurs. [Emphasis mine]⁷²

There are major problems with this approach. First, the Pact does not have the overall superiority in forces needed for such "steamroller tactics." The notion that the Pact has an overwhelming superiority of forces which would allow it to expend forces in such a manner does not square with reality.⁷³ Secondly, the process of removing shattered divisions from the front and replacing them with fresh divisions is a complex and time-consuming task. Thirdly, even if such "steamroller tactics" enable the Pact to open a hole in NATO's front in the initial stages of the conflict, the Pact forces still must effect a deep strategic penetration while NATO is moving forces into its path. This is a most demanding task and requires both flexibility and initiative. Continued use of "steamroller tactics" after the breakthrough battle will not suffice.⁷⁴

72. Steven Canby, *The Alliance and Europe: Part IV, Military Doctrine and Technology*, Adelphi Paper No. 109 (London: IISS, 1974/5), pp. 10–11. Also see John Erickson, "Soviet Ground Forces and the Conventional Mode of Operations," *Journal of the Royal United Services Institute*, Vol. 121, No. 2 (June 1976), p. 46.

73. This is reflected in the overall force ratios presented in this study.

74. What is particularly ironic about Canby's views on a Soviet offensive is that he criticizes NATO for preparing for a firepower-oriented battlefield while the Pact "is oriented towards an armoured-style conflict based on manoeuvre." He goes on to say, "[T]his means the United States fights battles to wear down opponents. The Soviet Union fights battles to *avoid* further battles." Steven Canby, "NATO: Reassessing the Conventional Wisdoms," *Survival*, Vol. 19, No. 4 (July/August 1977), p. 165. This view of Soviet strategy hardly squares with his discussion on using divisions and *even armies* in support of "steamroller tactics."

Other deficiencies in the Soviet Army cast doubt on the Soviets' capacity to launch a successful *blitzkrieg*. For example, the Soviets have significant problems with training.⁷⁵ Overreliance on training aids and simulators is a factor often cited, and there is widespread feeling that the training process does not satisfactorily approximate actual combat conditions. Training is of special importance for the Soviets since their army is comprised largely of conscripts who serve a mere two years. Moreover, since new conscripts are trained in actual combat units, more than half of the troops in the 19 Soviet divisions in East Germany are soldiers with less than two years of experience. At any one time, a significant number of those troops is either untrained or partially trained. It should also be noted that Soviet soldiers are deficient in map reading, a skill which is of much importance for an army attempting to launch a *blitzkrieg*.⁷⁶

Finally, one must consider the capabilities of the non-Soviet divisions, which comprise approximately half of the Pact's 57 $\frac{1}{3}$ standing divisions. Although the Soviet divisions will certainly perform the critical tasks in any offensive, the non-Soviet divisions will have to play a role in the operation. Otherwise, the size of the offensive would have to be scaled down significantly. One cannot say with any degree of certainty that the East Europeans would be militarily incapable of performing their assigned task or that they would not commit themselves politically to supporting a Soviet-led offensive. The Soviets, however, would have to give serious consideration to the reliability of the East Europeans.⁷⁷ If the Soviets indeed pay such careful attention to the lessons of the Great Patriotic War as is widely claimed, they recall what happened opposite Stalingrad in 1942 when the Soviets were able to inflict a stunning defeat on the Germans by ripping through those sectors of the front covered by the Rumanians, the Hungarians, and the Italians.⁷⁸

75. See Donnelly, "Soviet Soldier," pp. 117-120; Keith A. Dunn, "Soviet Military Weaknesses and Vulnerabilities: A Critique Of The Short War Advocates," memorandum prepared for Strategic Studies Institute, U.S. Army War College, Carlisle Barracks, PA, July 31, 1978, pp. 15-16; Herbert Goldhamer, *Soviet Military Management at the Troop Level*, R-1513-PR (Santa Monica, Calif.: Rand Corporation, May 1974), chapters 2-4; Leon Gouré and Michael J. Deane, "The Soviet Strategic View," *Strategic Review*, Vol. 8, No. 1 (Winter 1980), pp. 84-85; and Karber, "Anti-Tank Debate," p. 108.

76. Dunn, "Soviet Military Weaknesses," pp. 16-17.

77. See Johnson et al., "The Armies of the Warsaw Pact" and Dale R. Herspring and Ivan Volgyes, "Political Reliability in the Eastern European Warsaw Pact Armies," *Armed Forces and Society*, Vol. 6, No. 2 (Winter 1980), pp. 270-296.

78. As John Erickson notes, it is very unlikely "that any non-Soviet national force would be allotted an independent operational role on any scale." Erickson, "Soviet Military Capabilities in

Although the Soviet Army has important deficiencies, it would still be a formidable opponent in a war in Europe; the Soviet Army is not by any means a hapless giant. Neither, however, is it an army which is well prepared to defeat NATO with a *blitzkrieg*. The shortcomings noted in the foregoing cast extreme doubt on the claim that the Soviets have the capability to launch a *blitzkrieg* with confidence of success. The Soviet Army is definitely not a finely tuned instrument capable of overrunning NATO at a moment's notice. To claim, then, that the Soviets have "adopted and improved the German *blitzkrieg* concept"⁷⁹ has a hollow ring. Most importantly, the evidence indicates that the Soviets recognize these shortcomings and their implications for winning a quick victory.

Conclusion

Even if one were to discount these weaknesses of the Soviet Army, the task of quickly overrunning NATO's defenses would be a very formidable one. A Pact offensive would have to traverse the obstacle-ridden terrain which covers almost all of Germany and restricts the movement of large armored units. Moreover, there is good reason to believe that NATO has the wherewithal to thwart such an offensive. In short, NATO is in relatively good shape at the conventional level. The conventional wisdom which claims otherwise on this matter is a distortion of reality. Since, as former Defense Secretary Donald Rumsfeld noted, "the burden of deterrence has once again fallen on the conventional forces," this is welcome news.⁸⁰

Two very important caveats, however, are in order. First, NATO must provide for the continuation of ongoing improvements in its force structure. There is no evidence that the Soviet effort to modernize her forces in Central Europe is slowing down. Therefore, NATO must continue to make improvements if it is to maintain the present balance. It is absolutely essential, for example, that deployment of the American Corps in NORTHAG be com-

Europe," *Journal of the Royal United Services Institute*, Vol. 120, No. 1 (March 1975), p. 66. This could lead to problems for the Soviets because it forces them to disperse their own divisions, thus limiting the number available for the principal attacks.

79. Canby, *The Alliance and Europe*, p. 9. This view is also reflected in: Eugene D. Bétit, "Soviet Tactical Doctrine And Capabilities And NATO's Strategic Defense," *Strategic Review*, Vol. 4, No. 4 (Fall 1976), p. 96; Erickson, "Soviet Ground Forces," p. 46; and Daniel Gouré and Gordon McCormick, "PGM: No Panacea," *Survival*, Vol. 22, No. 1 (January/February 1980), p. 16.

80. FY 1978 Posture Statement, p. 85.

pleted. It is also imperative that the Belgians, the British, and the Dutch continue to modernize and upgrade their conventional forces. More specifically, these forces, especially the British, must increase the firepower of their individual brigades. The Germans, for their part, must maintain their commitment to developing a formidable Territorial Army. At a more general level, NATO should make a greater effort to prepare the terrain in West Germany so as to further compound the attacker's problems. And, the Allies need to place more emphasis on improving the sustainability of their forces.

Although none of these improvements require significant increases in defense spending, there is cause for concern over their implementation. The various policy disputes that have plagued the Alliance over the past few years (neutron bomb, TNF modernization, Afghanistan, and Poland) have markedly weakened Alliance cohesion. Once again there is serious talk in the United States about greatly reducing the American commitment to Europe.⁸¹ And although there is no direct evidence yet that the Reagan Administration wants to scale back the American commitment to Europe, it is apparent from the Administration's first *Posture Statement* that it is primarily interested in spending defense dollars on strategic weaponry and the Navy.⁸² Even in the American Army, which was very much a Europe-oriented force in the 1970s, there is growing interest in preparing for contingencies outside of Europe.⁸³ If the Administration has to cut back projected defense spending for the next five years, it is likely that the NATO portion of the budget will come under attack.

Of course, there are danger signs on the other side of the Atlantic as well. Given the state of Britain's economy and her decision to purchase the expensive Trident missile, one cannot help but wonder if the British Army will not suffer in the future allocation of scarce resources.⁸⁴ Unfortunately, the

81. See for examples: David S. Broder, "Rising Isolationism," *Washington Post*, January 13, 1982, p. 23; Morton M. Kondracke, "Talking Ourselves Into Breaking Up the Alliance?" *Wall Street Journal*, January 7, 1982, p. 21; Ronald C. Nairn, "Should the U.S. Pull Out of NATO?" *Wall Street Journal*, December 15, 1981, p. 30; and Stansfield Turner, "A New Strategy for NATO," *New York Times Magazine*, December 13, 1981, pp. 42-49, 134-136.

82. See *FY 1983 Posture Statement*.

83. See, for example, General Edward Meyer's (the Army Chief of Staff) comments in Richard Halloran, "\$40 Billion Is Urged To Modernize Army," *The New York Times*, November 30, 1980, p. 33.

84. For an excellent discussion of the problems the British face as a result of a weak economy and the purchase of Trident missiles, see Lawrence Freedman, "Britain: The First Ex-Nuclear Power?" *International Security*, Vol. 6, No. 2 (Fall 1981), pp. 80-104.

British economy is not the only European economy that has fallen on hard times. Even in Germany, defense spending has been curtailed because of economic considerations.⁸⁵

It seems reasonable to assume that in the next few years, NATO will have some difficulty holding the line against attempts to cut back spending for the conventional defense of Europe. If such efforts were to succeed, NATO's present capability to defend against a Soviet offensive would be seriously eroded. Given the widespread recognition that parity obtains at all levels of the nuclear equation, and given the need for a conventional deterrent which flows from nuclear parity, such a development would be a mistake of grand proportions. What is particularly ironic about this threat of lost momentum at the conventional level is that it is due, in part, to the popular misconception that Western forces are hopelessly outnumbered at the conventional level. The reason is simple: if one believes that the disparity in conventional forces is very great, then what is the point of continuing to spend precious resources on a hopeless cause? Those Allied leaders who continually denigrate NATO's substantial conventional capability are, in effect, undermining popular support for continued spending on NATO's conventional forces.⁸⁶

Two other points regarding this popular misconception about the conventional balance in Europe bear mentioning. First, for the purposes of deterring a Soviet attack in some future crisis, it makes absolutely no sense to emphasize that should the Soviets attack, an easy victory would await them. Second, should there be a war in Europe, that message will not help and may very well threaten the resolve of NATO's fighting forces. As Senator Sam Nunn once remarked, "If our American fighting men ever conclude that high levels of this Government have them deployed on a strategy that is inevitable failure, then nothing could destroy military morale of our country quicker."⁸⁷ No one wants to die for a lost cause. Fortunately, the conventional wisdom is wrong; NATO presently has the capability to thwart a Soviet attack. Unfortunately, too few people recognize this.

The second caveat concerns warning time and mobilization. Given NATO's

85. For a pessimistic assessment of the future of the German military, see John Vinocur, "Study by Bonn Foresees Trouble for the Military," *The New York Times*, February 9, 1982, p. 12.

86. This is not to deny that NATO has legitimate deficiencies which Allied leaders have a responsibility to point out and to rectify.

87. See U.S., Congress, Subcommittee on Manpower and Personnel of the Senate Armed Services Committee, *Hearings on NATO Posture And Initiatives*, 95th Cong., 1st Sess. (Washington D.C.: GPO, August 3, 1977), p. 20.

present intelligence capabilities and the Pact's force structure, there is little doubt that NATO would detect a full-scale Pact mobilization almost immediately. Obviously, NATO must ensure that it maintains this capability. Problems arise, however, in circumstances where the Pact pursues a limited mobilization which is somewhat difficult to gauge. Although there are real limits as to how much mobilization the Soviets can achieve before tipping their hand, NATO needs to be especially sensitive to such an eventuality. Moreover, NATO must be prepared to respond to a limited mobilization, even if the evidence of such a mobilization is somewhat ambiguous. This leads to the critical problem of mobilization.

This article highlights how important it is that NATO mobilize its forces immediately after the Pact begins its mobilization. A favorable balance of forces in a crisis will be a function of political as well as military factors. As Richard Betts notes in his very important article on this subject, "Even if intelligence monitoring can ensure warning, it cannot ensure authorization to respond to it."⁸⁸ Therefore, it is essential that NATO's political and military leaders carefully consider the various mobilization scenarios that they may face in a crisis. The real danger is that NATO's leaders will not agree to mobilize in a crisis for fear that such a move might provoke a Soviet attack. The risk of pushing the Soviets to preempt can be reduced, however, by avoiding certain provocative moves and by clearly communicating one's intentions to the other side. Nevertheless, the risk of provoking a Soviet attack by initiating NATO mobilization can never be completely erased. That risk, however, must be weighed against the far greater danger that if NATO does not mobilize, the capability to defend against a Pact attack will be lost. Moreover, once the Pact achieves a decisive superiority because of NATO's failure to mobilize, it would be not only difficult, but very dangerous for NATO to attempt to redress the balance with a tardy mobilization. Seeing that process set into motion, the Pact would have a very strong incentive to attack before NATO erased its advantage. In short, it is essential that NATO plan for ways to mobilize that do not provoke a Soviet attack, but, at the same time, ensure that NATO does not lose its present capability to defend itself effectively against a Soviet offensive.

⁸⁸ Betts, "Surprise Attack," p. 118.