

The US Army War College Quarterly: Parameters

Volume 13
Number 1 *Parameters* 1983

Article 17

7-4-1983

A CONVENTIONAL DETERRENT FOR NATO: AN ALTERNATIVE TO THE NUCLEAR BALANCE OF TERROR

Myra Struck McKittrick

Follow this and additional works at: <https://press.armywarcollege.edu/parameters>

Recommended Citation

Myra S. McKittrick, "A CONVENTIONAL DETERRENT FOR NATO: AN ALTERNATIVE TO THE NUCLEAR BALANCE OF TERROR," *Parameters* 13, no. 1 (1983), doi:10.55540/0031-1723.1324.

This Article is brought to you for free and open access by USAWC Press. It has been accepted for inclusion in The US Army War College Quarterly: Parameters by an authorized editor of USAWC Press.

A CONVENTIONAL DETERRENT FOR NATO: AN ALTERNATIVE TO THE NUCLEAR BALANCE OF TERROR

by

MYRA STRUCK MCKITRICK

© 1983 Myra Struck McKitrick

The nuclear freeze movements in the United States and Europe have brought the issue of nuclear weapons once again into the political spotlight. Reacting to the publicity surrounding important weapon modernization programs in both US strategic forces and European-based theater nuclear forces, the advocates of a nuclear freeze have denounced the modernization programs with the argument that existing systems have brought little enough confidence or stability.

In the United States the debate has focused on the maintenance of strategic nuclear deterrence and on whether deployment of B1s, MXs, and Trident IIs would increase or decrease the likelihood of nuclear war. The debate in Europe, on the other hand, has as a centerpiece the question of the relationship between theater nuclear weapons and conventional forces and the desirable balance between the two. Integral to this European debate are the issues of American control of NATO's nuclear warheads and continuing American dominance in alliance military decision-making.

This questioning of the role of nuclear weapons by Western politicians and their constituencies has coincided with the end of a

decade-long, Soviet-led conventional buildup in Europe; the development of new Soviet worldwide intervention capabilities; and the introduction to the Soviet arsenal of potent and unparalleled intermediate-range nuclear systems. These developments alone did not give rise to the December 1979 NATO modernization decision, however, nor to the current emphasis on strategic modernization in the United States. The need for modernization can be traced also to the lack of new investment in weapon systems in the early 1970s, a shortcoming that now must be addressed by the replacement of old systems if defense planning—as currently practiced—is to be supported after 1986. Nevertheless, the growth in Soviet capabilities provided both a catalyst and a political justification for the NATO modernization program as it was established in 1978 and 1979.

NATO planners failed to appreciate fully the extent of negative public response that these nuclear-force modernization plans would engender. Certainly, West Europeans and Americans tend to differ on the relative importance of political, economic, and military approaches to the Soviet Union, and those differences remain critical issues; but most European leaders recognize that without

a significant US military presence and security commitment, the Warsaw Pact threat would be unmanageable under current political circumstances, short of a realignment of European power. The continued modernization of Soviet European forces, the inflexibility of the Soviet position in the talks on intermediate-range nuclear forces, the invasion of Afghanistan, and the intransigence of the Soviet-backed regime in Poland serve as reminders that Soviet intentions have not softened. What has become apparent since December 1979, however, is the unwillingness of a broad segment of Western society to accept, without debate, the old method of dealing with Eastern conventional power: reliance on US nuclear weapons.

Since the early years of the NATO alliance, West European and American governments alike have seen the deployment of nuclear weapons in Europe as a substitute for the funding and maintenance of sufficient conventional strength. Early intentions were to provide the necessary conventional force levels, as the Lisbon agreement of 1952 shows. But the pledge to create 96 divisions supported by 9000 aircraft soon dissolved in the face of competing demands for national resources, particularly when there appeared to be an easy and relatively inexpensive alternative. As the result of research carried out in the United States after World War II, a program for the development of small atomic weapons ideal for use on the battlefield had reached full swing by 1948. Substantial support for the full exploitation of the possibilities of these small weapons existed within the highest levels of the Truman Administration, and even more enthusiasm was shown by its successor.¹

The notion that a nuclear deterrent for Europe could substitute for a credible conventional defense was firmly established during the first years of the Eisenhower Administration, and it remains a fundamental assumption underlying current NATO defense planning. The recent call by McNamara, Bundy, et al. for a no-first-use policy for nuclear weapons in Europe evoked a response from the Reagan Administration

reminiscent of Eisenhower's insistence in 1953 that the Joint Chiefs base their planning on the early use of nuclear weapons, thereby allowing significant cuts in the defense budget. In a modern-day echo of that kind of thinking, Alexander Haig, then Secretary of State, rebuked supporters of a no-first-use policy with a claim that it would necessitate a return to the draft and a tripling of the US armed forces.²

Nevertheless, there is an essential difference between 1953 and 1982 in the way the relationship between conventional and theater nuclear forces is officially viewed. Eisenhower's link was a direct one. Theater nuclear forces, he said, were "becoming more and more conventional, and replacing what used to be called conventional weapons."³ Nuclear weapons, in that view, could logically be used in the actual defense of Europe, thereby contributing significantly to the combat potential of the NATO alliance. Defense and deterrence were synonymous.

But, by 1955, the US Army had begun to publicly challenge the argument that nuclear weapons could substitute for conventional forces. Army Chief of Staff Matthew Ridgway argued that the nature of tactical nuclear warfare would require more, not fewer, men on the ground.⁴ During the remainder of the decade, civilian as well as military strategists increasingly came to question the doctrine that not only accepted this substitution but also assumed the use of

Myra Struck McKitrick is a national security consultant currently residing at West Point, New York. A graduate of the Johns Hopkins University School of Advanced International Studies, Mrs. McKitrick has served with the International Security Studies Program of the Woodrow Wilson International Center for Scholars in Washington, and in the International Security Programs Bureau of the Arms Control and Disarmament Agency. She has written on European security issues, US defense policy, and nuclear nonproliferation. The present article was drawn from a paper prepared for the International Standing Conference on Conflict and Peace, West Point, August 1982.



nuclear weapons early in any major war. The logic of NSC 162/2, which called for the immediate use of theater nuclear forces in a major contingency, was softened somewhat by NATO leaders in 1957, four years after its promulgation, when the Foreign Ministers adopted MC/70.

This document outlined a five-year plan to increase conventional strength on the Central Front. Even so, such forces were only to briefly hold the Soviets in check in order to provide a "pause" during which NATO's intention to escalate would be made clear, thus deterring further aggressive action. It was not clear, however, that NATO would actually use its nuclear weapons as the plans dictated and, if it did, that the consequences would be less than catastrophic. "Doubt about the automatic character of nuclear retaliation in the event of local limited actions is general," Helmut Schmidt wrote in 1962.⁵ Even if it were not, he continued, the policy would be self-defeating:

To persist with [current policy] would mean that every conceivable instance of military conflict in Europe would automatically lead to the decimation of Europe's civil population—that of Germany in particular. That this concept should remain in force is inconceivable. So long as it is not changed, however, and so long as a change of concept is not reflected in the developments in the actual weapons field, it cannot be assumed that Europe is defensible in war. On the contrary, we should all assume that Europe will be destroyed.⁶

Although President Eisenhower remained convinced up to the end of his second Administration of the necessity to rely primarily on nuclear weapons in Europe, the shift toward viewing theater nuclear forces as primarily a deterrent rather than as forces practical for combat was well underway by then within the civilian defense establishment. President Kennedy and his advisors were convinced by arguments such as Schmidt's. Under Kennedy the US government officially recognized that nuclear

weapons were not a substitute for conventional forces, and that deterrence and a flexible warfighting capability both required a credible nonnuclear option.

Since that time public officials have stressed the importance of conventional forces, arguing that while theater nuclear forces are necessary as a hedge against conventional failure, they are no substitute for conventional combat-ready forces. Many speeches and reports of Secretaries of Defense over the last 18 years have echoed these words of Robert McNamara:

A major objective of U.S. military policy since 1961 has been to strengthen the non-nuclear capabilities of the Free World, and in particular those of NATO . . . [but] even in limited war situations, we should not preclude the use of TNW, for no one can foresee how such situations might develop. But the decision to employ tactical nuclear weapons in limited conflicts should not be forced upon us simply because we have no other means to cope with them.⁷

In 1982 Defense Secretary Weinberger's pronouncement that the present Administration "does not regard nuclear strength as a substitute for conventional strength" was also qualified by emphasis on the importance of nuclear weapons. In the years since the McNamara statement, however, the context had changed, in that Weinberger called for "every necessary effort to acquire sufficient [nuclear] strength," in order to "prevent the Soviets from acquiring a superiority that mistakenly and tragically would be believed by them to indicate that a first strike, by them, could ever succeed."⁸

This policy of pursuing nuclear modernization simply to preclude Soviet superiority has been valid on the strategic level since the recognition of strategic parity in the early 1970s. In the United States, the doctrinal implications of parity meant a shift away from reliance on strategic nuclear weapons for the deterrence of anything but the use of other nuclear weapons. A logical complement was that the role of theater

nuclear weapons in Europe took on a greater importance as an independent element in the balance of forces.

Now, as a result of a sustained Soviet modernization effort that has introduced a significant new capability to the European theater in the form of the SS20, and the advent of a new school of thought that has emphasized the importance of a "Eurostrategic balance" in an era of strategic nuclear parity, the demands for modernization for the purpose of precluding Soviet superiority seem valid at the theater nuclear level as well. What the recognition of parity (and some would say, Soviet superiority) at this level means for European defense is a new emphasis on achieving a balance for conventional forces.

In recent congressional testimony, SACEUR General Bernard Rogers explained why "we have entered an era in which our conventional forces play a more essential role than ever in providing deterrence against an attack by the forces of the Warsaw Pact." In the past, he noted,

many considered it sufficient for NATO's conventional forces merely to be capable of holding a Warsaw Pact offensive long enough for decisions to be made about NATO's nuclear response. However, in this era of nuclear parity—or less for NATO—the danger exists that the Soviets could perceive that they possess both the capability to inflict a quick conventional defeat on us and a sufficient nuclear edge to deter our escalation.⁹

That the conventional balance has taken on a new importance for the West in both political and military terms seems to be the by-product of developments relating to the nuclear balance. This growing importance has also occurred at a time when the gap between NATO and Warsaw Pact conventional capabilities is increasing in favor of the East, despite NATO implementation of portions of the Long-Term Defense Plan, improvements in reinforcement and crisis-management planning, and improvements in readiness. The challenge for NATO is to

develop and maintain the force posture that these strategic considerations and the relentless growth of the threat demand.

The challenge is essentially a political one. "It is not a question of whether or not we can afford large increases in defense spending," a prominent economist has noted. "Of course we can. The question is whether or not we want to."¹⁰ In the democratic West, sustained support for conventional force improvements, in the absence of significant economic growth, will depend upon popular perceptions of the size of the threat and the legitimacy of the proposed response.

Of course, the existence of a threat does not necessarily give rise to a general perception of its existence, and, even if there were such a perception, it would not guarantee acceptance of the need to counter the threat. General Rogers pointed out in his congressional testimony that "the threat to the Alliance [has] grown rapidly over the past 20 years and continues to grow," while our relative capability to counter it has declined, leaving our deterrent "in jeopardy."¹¹ Nevertheless, he went on to say, "the citizens of [Western Europe] are not yet convinced of the threat to their freedom."¹²

On the other hand, the Soviet threat has become more of a menace in the collective American mind in the last two years. A spectacular growth in concern about foreign policy issues occurred in the United States after the American hostages were taken in Iran and after the invasion of Afghanistan. At the beginning of 1980, 42 percent of the American public considered foreign policy to be the most important problem facing the United States; only three percent had so characterized it seven months earlier.¹³ This change was accompanied by a longer-term trend in support of intervention in the defense of Europe against Soviet aggression. In 1974, 39 percent favored such intervention; by 1978 a majority held that view; and by 1980 positive responses ran at 67 percent.¹⁴ At the same time, however, a majority feared that the United States was inferior to the Soviet Union in military strength. Since 1980, support for defense spending has declined along with the economy, yet attitudes toward

Soviet intentions have not returned to the complacency exhibited during the early and mid 1970s. There are also indications of a shifting mood in Canada, already resulting in greater defense efforts with regard to the Canadian role in NATO.¹⁵

A difference in perception within the NATO alliance leads inevitably to tension. European claims that the United States is overreacting to events are countered by US complaints that Europe is not interested in her own defense. Such contrary views are the result of conflicting evaluations of the threat and of the soundness of the chosen collective response, that is, the legitimacy of NATO's military doctrine and force posture. This lack of consensus within NATO on so vital a matter has led, in the United States, to calls by several well-known defense analysts and members of Congress for a withdrawal of American troops from Europe.

Recent growth of the anti-nuclear movement in Europe to encompass segments of the middle class can be attributed in large part to a lack of public confidence in NATO's deterrent posture—the result of a growing feeling that the deployment of new nuclear weapons is not the way to ensure against nuclear war. Thus NATO's reliance on nuclear weapons has become a particularly touchy political issue and, to some, an unacceptably risky, or even illegitimate, method of defense. Although this point of view has always had its spokesmen in NATO countries, the current situation is different. With 20 years of Soviet conventional-force buildup behind us, and with an East-West relationship further characterized by strategic nuclear parity and Soviet theater-nuclear-force superiority, NATO countries cannot afford to allow this anti-nuclear feeling to translate into an anti-defense mood. The challenge is to channel the anti-nuclear-weapons energy into increased support for a conventional deterrent.

The notion of a conventional deterrent for Europe has also suffered from a lack of legitimacy, however, in both Europe and the United States. Senator Sam Nunn made this point one of the centerpieces of his recent report to the Senate Armed Services Committee. In *NATO: Can the Alliance Be*

Saved? Nunn criticized traditional thinking in the West that has overemphasized the investment needed for a conventional deterrent and has underestimated NATO's inherent capabilities and resources:

The conventional force gap between NATO and the Warsaw Pact has been described as so large for so long that a viable conventional defense is believed by many to be hopeless . . . [and] the cost of matching Warsaw Pact forces one for one . . . is seen as prohibitive.¹⁶

"NATO is thus faced with a dilemma," he continued.

There is a growing consensus that less reliance should be placed on use of nuclear weapons in response to a conventional Warsaw Pact attack, but there is a widespread feeling that a viable non-nuclear defense is not attainable. This paradox, coupled with political and economic differences within the Alliance, is causing frustration in America and is threatening the very fabric of the Alliance itself.¹⁷

If NATO's military coherence is to survive in this new environment, the alliance will have to meet these challenges caused by the gap between public perceptions and reality; alliance leaders will have to convince their constituencies not only that a serious threat exists but that it can be effectively countered at reasonable expense in a way that does not threaten to destroy us all. Doing so will not be easy. A "What's the use? We can't match them anyway" attitude soon creates a tendency to disregard the threat or to adopt a neutralist or pacifist approach toward it. At a time when attitudes like those described by Senator Nunn are seen as the norm, it is critical that the alliance dispel the myth that a credible nonnuclear defense is impossible at the same time that it explains the nature and seriousness of the threat, if the alliance hopes to evoke truly committed support for NATO defense.

Perceptions are shaped as much by the source of information as by its content. It is therefore very important that at a time when

the United States is seen as overbearing by its European allies, information on the threat be available from sources other than the US government. The recent publication by NATO of a white paper outlining the current balance of forces between the two alliances—both conventional and nuclear—has been a most significant step in the right direction. Unilateral white papers published by the individual NATO member nations should also be encouraged to a greater extent—for example, West Germany has not published a defense white paper since 1979.

Although NATO ground forces in Europe together with those of France outnumber Warsaw Pact ground forces by over 750,000, or about 42 percent, the proximity of the Soviet Union to Western Europe gives it an unequalled reinforcement advantage.¹⁸ A comparison of manpower on the Central Front alone favors the Soviet bloc by a margin of 1.15 to 1; moreover, official NATO figures put the Soviet advantage in tanks at better than three to one, with an advantage in artillery that is only slightly less.

It is such static comparisons of numbers that have led to feelings of hopelessness regarding a conventional deterrent for NATO. If one were to focus strictly on numbers of tanks, armored personnel carriers, and aircraft, it would seem that NATO cannot match the Warsaw Pact. And just such misplaced emphasis on numbers alone is what has led so many political leaders to think in the way criticized by Senator Nunn. The truth of the matter is that fairly moderate increases in alliance-wide defense spending, coupled with the continued implementation of current programs, could, with proper focus, lead to substantially enhanced conventional capabilities.

One problem has been a failure of NATO members to collectively carry through defense commitments, such as the three-percent annual real growth in defense spending agreed to by the NATO heads of state in 1978. By the spring of 1982, according to General Rogers, there had "not been much progress made in most of the 10 programs that comprise the [Long-Term Defense Plan, and] . . . in some areas

. . . such as electronic warfare, we literally have made no progress at all."¹⁹ Movement in other categories, however, provides at least some indication of continued political interest in fulfilling the plan's goals.

SHAPE has now subsumed elements of the Long-Term Defense Plan into its force proposals for 1983-88, which assume a four-percent real increase per year alliance-wide. Such an objective, agreed to and carried out over the six-year period, would "give us the appropriate [conventional] capability by the end of this decade," General Rogers has claimed.²⁰ The example set by the increase in the US defense effort over the past two years is bound to lend encouragement to European political leaders seeking to maintain real growth in their own defense budgets.

Modern technology has also created new possibilities for conventional defense, with weapons more lethal and less expensive per unit. The US Army's Improved Conventional Munitions Program has promoted the development and deployment of precision-guided munitions for systems such as the Corps Support Weapon System and the Multiple-Launch Rocket System. The CSWS, now being developed as a follow-on to the Lance missile, will exploit the technology of terminally guided submunitions, thereby increasing the effectiveness of the conventional warhead. In line with the Assault Breaker concept, each CSWS missile will be developed to engage and destroy a company-sized armor unit. The test missiles designed thus far can engage 14 targets, but the system has a capability for up to 21 targets per missile.²¹

The Multiple-Launch Rocket System will also eventually be equipped with terminally guided submissiles for a heavy anti-armor capability. In the meantime, the first MLRS battalion will become operational early in 1983, with the development program's European partners beginning their deployments soon afterward.²² This system concentrates immense firepower in one unit and is capable, within the space of a single minute, of firing 12 rockets to ranges in excess of 30 kilometers. One rocket warhead can carry over 600 submunitions, which in

combination with those of the other 11 warheads can be dispersed over 30,000 square yards. A single firing of 12 rockets can destroy an opposing artillery battery.²³

These two examples illustrate why one defense analyst has declared the new technology as having a potential great enough to have "tipped the offense-defense balance in the Central Region in favor of the defender."²⁴ The full exploitation of these types of weapons, accompanied by a doctrine that takes full advantage of their capabilities, can, along with the defense expenditure increases proposed by General Rogers, lead NATO a long way toward the realization of what it has long thought too costly: a credible conventional deterrent.

This does not mean, however, that technology and money are the only necessary ingredients. Important political decisions of a noneconomic nature will have to be made on both sides of the Atlantic if the challenge is to be fully met. A current source of complaint from the Continental members of NATO is the lack of conscription in the United States—a political cost the United States does not have to pay, they argue, and should thus compensate for in economic resources. This political perception of unfairness is not the most serious problem caused by the lack of a draft in the United States, however. The critical problem is its effect on US mobilization potential. Under the current registration system, even given an optimistic assumption that the first reinforcements could be ready for Europe four months after mobilization, US commanders in Europe fear that the Army's reinforcements already under arms would have been long since committed by that time.²⁵ While military conscription might not be the best answer for improving the capability of the United States to mobilize quickly to reinforce the European theater, other methods—such as a draft for reserves only—would also present difficult problems for US political leaders.

A realistic conventional defense capability in Europe may well require enhancement through fortifications and preconstructed obstacles. Such moves have been blocked by

political considerations in the past, the most important being the added permanence such barriers would give to the border between East and West Germany. But the advantages of barriers are great: fortifications can increase a defender's combat power by orders of magnitude greater, for each dollar spent, than that gained by fielding additional military units. Further, a fortification program can be implemented in a relatively short period of time. NATO procedure allows for fortifying and barricading prior to the outbreak of hostilities; however, full implementation depends upon both adequate warning time and few delays in the decision-making process. Erected long before a crisis, on the other hand, prepared fortifications would also serve as an excellent deterrent, in that they would provide further standing proof of NATO's intention to thwart aggression.²⁶ While a decision to implement a fortifications program would be difficult indeed for West Germany, it may be necessary in order to sustain both forward defense and the conventional deterrent.

Even if the possibilities discussed above for a conventional deterrent for Europe were realized, the requirement for theater nuclear forces would not disappear. Although they would have lost their defensive role, theater nuclear forces would retain their deterrent value; only nuclear weapons deter other nuclear weapons (and with the advent of strategic nuclear parity, strategic weapons can no longer be counted upon to deter theater nuclear weapons). Uncertainty is a critical element of deterrence, and the continued deployment of US nuclear warheads in Europe causes greater uncertainty in Soviet planning. Finally, while it may be argued, as has been done here, that politics now demands less reliance on nuclear weapons, one may not extend that demand to the elimination of all warheads from Europe. On the contrary, politics, under current circumstances, dictates the presence of some US nuclear weapons as a symbol of US commitment and a symbol of the link to US strategic forces that America's European allies desire. While perhaps theoretically

unnecessary in terms of adding to deterrence, such symbols continue to be vital to the alliance.

A realistic conventional deterrent for NATO exists only in the realm of speculation. The intention here has been to suggest means of going beyond that state through greater informational and educational efforts regarding the threat, and by a thorough public examination of the possibilities suggested by General Rogers for achievement of an "appropriate capability" through a reasonable four-percent growth rate.

The most important political implication of the current superiority of Soviet conventional forces on Europe's Central Front is the potential that now exists: potential built of recognition on the part of NATO governments of the danger in a new environment that precludes the redressing of the conventional balance by either strategic or theater nuclear capabilities. Coincident with this danger, and to some extent reinforcing it, has been a demand by NATO publics for an alternative to the nuclear balance of terror. This situation has forced governments to focus on the improvement of conventional defenses. The challenge remains for governmental leaders and politicians to lead their constituencies in that same direction.

NOTES

1. For a full discussion of the historical development of theater nuclear forces and doctrine, see Myra Struck, "Theater Nuclear Forces: Europe's New Maginot Line?" *S.A.I.S. Review*, 25 (Summer 1981), 113-29.

2. In a speech delivered to the Georgetown University Center for Strategic and International Studies on 6 April 1982, Secretary Haig stated:

Those in the West who advocate the adoption of a 'no first use' policy seldom go on to propose that the United States reintroduce the draft, triple the size of its armed forces, and put its economy on a wartime footing. Yet, in the absence of such steps, a pledge of no-first-use effectively leaves the West nothing with which to counterbalance the Soviet conventional advantages and geopolitical position in Europe.

For a full text of this speech, see "Haig's Speech on American Nuclear Strategy and the Role of Arms Control," *The New York Times*, 7 April 1982, p. A-8.

3. This statement is attributed to John Foster Dulles. See Samuel P. Huntington, *The Common Defense* (New York: Columbia Univ. Press, 1961), p. 80.

4. Jeffrey Record details Ridgway's dissent in *U.S. Nuclear Weapons in Europe: Issues and Alternatives* (Washington: The Brookings Institution, 1974), pp. 11-12.

5. Helmut Schmidt, *Defense or Retaliation* (New York: Praeger, 1962), p. 94.

6. *Ibid.*, p. 103.

7. Robert S. McNamara, "Statement of Secretary of Defense Robert S. McNamara Before the House Armed Services Committee on the Fiscal Year 1966-70 Defense Program and 1966 Defense Budget," 18 February 1965, pp. 73-74.

8. Caspar W. Weinberger, congressional testimony, 3 February 1982. US Congress, House, Committee on Armed Services, *Military Posture, Part One*, H.A.S.C. No. 97-33 (Washington: GPO, 1982), pp. 7-8.

9. Bernard W. Rogers, congressional statement and testimony, 2 March 1982. In *ibid.*, p. 940.

10. Alice Rivlin, in discussions at the Women's Leadership Conference on National Security, Washington, DC, 13-16 June 1982.

11. Rogers statement, *Military Posture, Part One*, p. 937.

12. *Ibid.*, p. 946.

13. Daniel Yankelovich and Larry Kaagen, "Assertive America," *Foreign Affairs*, 59 (No. 3, 1981), 700.

14. *Ibid.*, p. 707.

15. Rogers statement, *Military Posture, Part One*, p. 956.

16. Sam Nunn, "NATO: Can the Alliance Be Saved?" *Report to the Committee on Armed Services, United States Senate* (Washington: GPO, 13 May 1982), p. 3.

17. *Ibid.*, pp. 3-4.

18. This figure also includes 255,000 Spanish ground forces. International Institute for Strategic Studies, *The Military Balance, 1981-82* (London: IISS, 1981), p. 124.

19. Rogers statement, *Military Posture, Part One*, p. 957.

20. *Ibid.*, p. 950.

21. Eric C. Ludvigsen, "'Get-Well' Point—Still Over Horizon," *Army* (1981-82 Green Book), 31 (October 1981), 326. See also "Managing Modernization," *Army* (1982-83 Green Book), 32 (October 1982), 325-26.

22. Jim Tice, "Italy Becomes 5th Partner in MLRS Project," *Army Times*, 16 August 1982, p. 23.

23. Ludvigsen, pp. 326-27. See also "Managing Modernization," *Army*, pp. 327-29.

24. Waldo D. Freeman, Jr., "NATO Central Region Forward Defense: Correcting the Strategy/Force Mismatch," *National Security Affairs Issue Papers, No. 81-3*, National Defense University, 1981, p. 5.

25. Rogers statement, *Military Posture, Part One*, p. 944.

26. For a complete analysis of fortifications, barriers, and obstacles for NATO's central region, see Freeman.

