

PRESIDENTIAL DIRECTIVE 59:

FLAWED BUT USEFUL

by

COLIN S. GRAY

By prior arrangement with the authors, Dr. Gray's article replies to the preceding article by Professor Beres. Professor Beres will be afforded an opportunity to continue the dialogue in the Commentary & Reply feature of a future issue.

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Nuclear weapons are a permanent element in international politics. Moreover, the United States, as leader of a maritime alliance of Eurasian-peripheral states, is compelled for geopolitical reasons to place greater emphasis upon nuclear threat than does the Soviet Union.¹ In discussing the particular instrumentalities through which the United States manifests that threat, I shall assume that all Western commentators on the subject are morally equal: proponents and critics of PD 59 are united in a shared horror of the prospect of nuclear war.²

This article does not constitute a wholesale defense of PD 59. It is intended, rather, to defend PD 59 against ill informed and poorly conceived criticism. It is contended here that PD 59 may be thought of as a major step forward in the US quest for a prudent strategic targeting policy. However, the document as presently constituted both contains dubious elements and reflects some of the more general weaknesses of US strategic thought. What then are the pertinent facts about PD 59?

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There are more, and less, intelligent

rationales for most strategic doctrines. Critics of the trend of recent years in official US strategic nuclear thinking may, if they wish, seize upon the weaker presentations of that thinking for the purpose of supporting their cases. This possibility is particularly strong with respect to PD 59 because only a handful of people have actually read the document. Secondary sources on PD 59 (such as articles in *The New York Times*) are not totally to be trusted because reporters often have an interest in presenting a particular view of an issue, and the language of presidential directives tends to the general rather than the specific. In addition, responsible officials often have quite a different understanding of what a policy document *really* says or implies. This is the case with PD 59. In short, even the document itself and primary sources such as explanations by the authors or direct contributors may be less than completely enlightening.

Today, while one can with some confidence outline what the authors of PD 59 intended, it is well worth remembering that *policy documents* do not, in and of themselves, constitute policy (particularly when an administration changes). Policy comprises capabilities, declarations, and actions. For PD 59 to merit the appellation of a new US strategy, it would have to be translated, successively, into a Nuclear Weapon Employment Policy (NUWEP) guidance document, and then into actual targeting plans by the Joint Strategic Target Planning Staff in Omaha. Neither of these essential steps toward policy, properly so-called, has yet been taken.

With particular reference to some of the claims advanced by Professor Beres, it will be useful to itemize briefly some of the beliefs that are *not* held by proponents—even somewhat critical proponents, such as myself—of PD 59. Contrary to Professor Beres' statements or obvious implications, proponents of PD 59—

- Do not believe that central nuclear war *will* be limited,³ only that it *might* be limited. PD 59 offers some possibility of limitation—the Mutual Assured Destruction theme favored by Beres offers no such possibility.

- Do not assume that the Soviet Union *will* cooperate in observing targeting restraints,⁴ only that the United States should endeavor to maximize Soviet incentives to be restrained and, if need be, seek to enforce restraints physically.

- Do not make “the assumption that the Soviets might have something to gain by launching a limited first-strike attack on the United States or its allies.”⁵

- Do not make “the assumption that the Soviets are more likely to be deterred by the threat of limited American counterforce reprisals than by the threat of overwhelming, total retaliation.”⁶

Harold Brown chose to characterize PD 59 as constituting an evolution in US strategic thinking.⁷ That is a defensible position; however, the immediate authors of the document had some distinctly non-evolutionary ideas in mind. First, they had a vision of a general war which might be protracted—requiring forces as well as command, control, communications and intelligence assets (C³I) which could survive and function for perhaps as long as six months. Notwithstanding the official endorsements in the early 1960's, renewed more vigorously in the early 1970's, of flexibility in the application of force through the Single Integrated Operations Plan (SIOP) and various sub-SIOPs, the fact is that to this day US strategic forces lack endurance, lack essential, survivable C³I, and lack serious support and plans for post-strike reconstitution.⁸ PD 59 does not say that general war *will* be protracted, only that it may be. Soviet

doctrine, sensibly, also is indefinite on this question.⁹

Second, the endurance of forces with varied characteristics married to survivable C³I should enable the US National Command Authority to wage the war in a genuinely flexible manner. Survivable C³I should permit genuine political direction of the war on an hour-by-hour and day-by-day basis. In practice “the fog of battle” may not permit this, but the goal is a sound one.

Third, officials have decided to downgrade in priority those kinds of targets (primarily of an “economic recovery” kind) the destruction of which would not contribute to an immediately successful outcome of a war.¹⁰ The United States has always targeted Soviet nuclear forces, and has targeted specific political-control nodes for many years.¹¹ PD 59 licenses the placing of greater emphasis on Soviet military targets of all kinds, as well as on political-control nodes and directly war-supporting industry.

Fourth, although PD 59 constitutes an incomplete revolution in strategic thought, as explained below, Harold Brown, probably unwittingly, advertised the possibility of a more fundamental shift:

In our analysis and planning we are necessarily giving greater attention to how a nuclear war would actually be fought by both sides if deterrence fails. *There is no contradiction between this focus on how a war would be fought and what its results would be, and our purpose of insuring continued peace through mutual deterrence.* [italics supplied]¹²

If taken at face value, which it should not be, this statement marks a complete doctrinal convergence of US strategic thought with Soviet strategic thought. Without apparent qualification, Harold Brown here is equating deterrence with defense. In practice, no group of senior US defense policymakers, to date, has shown sustained interest in strategic operational issues. Robert McNamara in 1962 expounded publicly on the merits of a no-cities targeting doctrine and appeared to be seriously interested in

flexibility in SIOP planning,¹³ but his interest soon waned. He was advised that damage limitation would be increasingly difficult to effect as the Soviet Union modernized and augmented its strategic forces, and that a damage-limiting or, in popular parlance, war-fighting posture would require the United States to "spend much more money on strategic forces, money that would have to come out of conventional force budgets."¹⁴

McNamara and his aides feared that a pronounced damage-limiting focus would be taken by the armed services as a license to bid and lobby for any and every new weapon system they fancied. Whatever his precise calculations may have been, there is no disputing that, although he supervised a vast improvement over the single-variant "Optimum Mix"¹⁵ war plan of the late 1950's, he did not ensure any genuine flexibility in the SIOP. In Henry Rowen's words,

The implementation of Secretary McNamara's flexible options initiative in the early 1960's was aborted in large measure by the withdrawal of his interest and support.¹⁶

The renewal of official interest in SIOP and sub-SIOP targeting flexibility under President Nixon was in good part a logical reaction to a deteriorating strategic balance.¹⁷ Both James Schlesinger and, later, Harold Brown were seeking "strategy offsets" for a growing deficiency in relative strategic muscle. Many of the ideas for improved targeting options that are explicit or implicit in PD 59 were developed in the study process that led to the promulgation of National Security Decision Memorandum 242 in the spring of 1974,¹⁸ and were even present in the studies conducted by Rand alumni for McNamara in 1961-62.¹⁹ PD 59 may be translated into operational planning, but—since functionally similar exercises in 1961-62 and 1971-74 found only pale reflection in NUWEP guidance and the SIOP—there are good historical grounds for skepticism over the eventual fate of PD 59, indeed, of its status as supposed "policy."

On a positive note, there is good reason

to believe that PD 59, although a Carter initiative, will not suffer a prompt demise under the Reagan Administration. PD 59, although quite hotly debated by the extended defense community, may fairly be characterized as reflecting a consensus of informed opinion among defense professionals. PD 59, endorsed on 25 July 1980 by former President Carter, expressed much of the sense of the "Sloss Report" of December 1978. This report by Leon Sloss²⁰ was compiled on the basis of the most persuasive arguments developed over the course of nearly two years of study effort. Much if not most of that study effort was conducted by people inside and out of government who were strongly critical of both many details and the general framework of Carter's defense policy. In a very real sense, therefore, PD 59 belongs to the relatively small professional defense policy analysis community and has few, if any, noteworthy Carterite features. PD 59, after all, succeeded the "Sloss Report" by all of 18 months—a clear demonstration of the tepid enthusiasm for the propagation of its ideas felt by many senior policymakers in the Carter Administration.

TARGETING STRATEGY

The SIOP, based on the Nuclear Weapon Employment Policy, expresses a

Colin S. Gray is Director of National Security Studies at Hudson Institute, Croton-on-Hudson, New York. He received his D. Phil. degree in international politics from Oxford University in 1970. Before joining Hudson Institute in 1976, Dr. Gray was an Assistant Director at the International Institute for Strategic Studies in London. Of recent years he has worked for the US government on strategic nuclear targeting questions among other projects. Dr. Gray has published widely. His books include *Canadian Defence Priorities* (Clarke, Irwin, 1972), *The Soviet-American Arms Race* (Lexington, 1976), *The MX ICBM and National Security* (Praeger, 1981), and *Strategic Studies and Public Policy* (Kentucky, 1981). He is currently concluding a major study of *Nuclear Strategy and National Style*.



strategy which should be guided by a theory of deterrence. A prudent, responsible US government should develop nuclear war plans which—

- Have the desired restraining effect upon Soviet policy impulses. In other words, the United States should promise, and be able, to take military action of a kind known to be the most unwelcome in Moscow.

- Are responsive to the need to support unique American foreign policy interests. As noted already, for geopolitical reasons the United States and its allies around the periphery of Eurasia are likely to continue in local conditions of conventional and theater-nuclear inferiority. This means that, as envisaged in the current NATO strategic concept of flexible response (NATO Military Committee, no. 14/3, 1967), the United States requires the capability to strike first with strategic forces and dominate any subsequent process of escalation. The Soviet Union does not have such a requirement. The Soviet need is for a strategic counterdeterrent able to checkmate the possibility of US strategic nuclear initiatives.²¹

- Would be of wartime, as well as pre-war, deterrent value, and which the United States would have an interest in implementing in the undesired event.²²

- Have integrity, as a potential unity, from the moment of employment to war termination. This entails the clear articulation of war aims. Although war plan design should have many branches, lower-level strike options should complement higher-level options—and the whole horrific enterprise should be informed by a determination to enforce as favorable (for US interests) a postwar international order as the circumstances of nuclear war permit.

- Take full account of the possibility that a condition may arise wherein the Soviet Union would be beyond deterrence. War plans, and their associated defense capabilities, have to be judged inadequate if they assume for their success cooperative behavior by the enemy, and if they cannot be implemented in toto in reasonable expectation that the essential United States would survive.²³

- Lack, in and of themselves, a “provocative” character such that—whatever their military rationality—they diminish US security.

WAR PLANNING: SOME CURRENT PROBLEMS

Major problems persist with reference to both the integrity of PD 59 and its associated process of targeting review. So far as physical assets are concerned, PD 59 cannot be implemented with current forces and C³I capabilities. Even if there were no reason to question the merit of the strategic vision in PD 59, the fact remains that the United States is the better part of a decade away from a matching force posture. Paradoxically, in the very same speech in which he sought to explain PD 59, Harold Brown announced the contemporary non-survivability of America’s silo-housed ICBM force.²⁴ In the absence of a large fraction of such a force, PD 59 could not be executed.

Conceptually, PD 59 reflects all too faithfully the poverty of US strategic thinking over the past 20 years in that it addresses only the issue of US *offensive* strategy. However, given the estimated character of Soviet targeting strategy,²⁵ the near-certain impact of the fog of battle, and the very human nature of American presidents, US strategic employment initiatives could not, or should not, be ordered in the absence of some tolerably robust theory of domestic damage limitation. Faith, let alone trust, cannot be reposed in a hypothesized willingness on the Soviet part to play the nuclear game according to American rules. In short, if an American president ever feels moved, in desperation, to begin what he hopes will be only a small, very limited nuclear war, he had better have at hand plans and capabilities which indicate how the United States can survive a very large nuclear war.

As readers may discern, some elements in the analysis in this article are congruent with those presented by Professor Beres. We agree that the Soviet Union may well not “play” in ways compatible with American interests and expectations, and that a small

nuclear war could all too easily become a large nuclear war. Where we part company is in our respective diagnoses of the US security condition and in our identification of feasible and prudent alternatives. Beres contemplates the possibility of nuclear war—which he views as a certainty “if nations continue to base their hopes for peace and security on the ability to visit nuclear destruction upon an aggressor”²⁶—and recommends that the United States “hew to a strategy of Mutual Assured Destruction based upon a reasonable countervalue strategic posture.”²⁷ In addition, he urges the United States to “take the lead in establishing a more harmonious style of interaction with the Soviet Union,”²⁸ to renounce “the right to first use of all nuclear weapons,”²⁹ and to strengthen its conventional forces so as “eventually to obviate all theater nuclear forces.”³⁰

These recommendations are simply unworldly—a fact which vitiates whatever merit they might have. A massive buildup of Western conventional forces is not feasible politically or economically, and is flawed in terms of strategic logic. There is an essential unity to military posture. If we choose to emphasize one element of the posture, particularly at the lower level of potential conflict, we virtually invite adversary escalation to a level where *he* has an advantage.³¹ Moreover, if the United States could not sell a conventionally oriented defense to its European NATO allies in the early and mid-1960’s, why does Professor Beres believe success in such an enterprise would be probable in the 1980’s and 1990’s? Given the uncomfortable but enduring facts of Western conventional inferiority in vital regions, Beres’ recommendations for an American no-first-nuclear-use declaration would promote panic in Western Europe, the Middle East, and Japan, and would vastly encourage nuclear proliferation. The path to hell is paved with good intentions.

While I share with Professor Beres a wish for Western (and Japanese) conventional forces to be greatly strengthened, and a desire to inhibit nuclear proliferation insofar as that is possible, I believe that the United States has no choice but to continue to rely

upon strategic nuclear threats as an important backstop to foreign policy. Such threats can be credible, and can be invoked prudently, only if their contemplation does not paralyze a US president into indecision. The first duty of the US government is to avoid defeat, not to enforce defeat upon the enemy. We should take small consolation from the knowledge that the United States could defeat the Soviet Union, in Soviet terms, if the price tag for that accomplishment is known to lie close to 100 million prompt American deaths.

Many in the US defense community today do not appear to recognize that the offense cannot be executed if the country cannot be defended. Domestic damage limitation is not an optional extra—it is a vital necessity if the SIOP is to have any operational value. Damage limitation, no matter how assiduously pursued, must always be imperfect. This author agrees with those critics who argue that nuclear war would be a catastrophe unprecedented for the United States.³² Anyone who asserted that a nuclear war against a first-class enemy would be cheap to conduct would have to be judged a dangerous charlatan. The important point to recognize, however, is that the United States *may have no practical alternative* to waging a nuclear war.

Professor Beres asserts that “the prudent course would appear to assume that any nuclear exchange must be avoided lest it become total.”³³ Such avoidance will be impossible if the Soviet Union decides to begin such a war, or if, in defense of vulnerable friends and allies, the United States decides that, *in extremis*, nuclear war is preferable to capitulation. So long as the United States needs a nuclear strategy, which is prospectively forever, it should—from choice—select a strategy which (a) has maximum deterrent impact on enemy minds; (b) poses measured destructive effects against the enemy for calculated political purposes rather than a gross destructive effect for its own sake (which is the case with Professor Beres’ preferred strategy of assured destruction);³⁴ and (c) would not, if executed in full, guarantee the near-total destruction of

the United States by way of enemy retaliation.

A damage-limitation capability comprising counterforce strikes, multilayer ballistic missile defense, air defense, and civil defense—though not perfect or “leak-proof”—should make the difference between a United States which could, and a United States which could not, survive a nuclear war. By extension, such damage-limitation provisions would restore meaning to the concept of *strategy* so far as US nuclear forces are concerned.³⁵ Military power and political purpose would be reunified, and the American president would have regained a useful measure of freedom of foreign policy action. The prospect of nuclear war would still be daunting: given what we think we know about probable Soviet strategic targeting “style,” American casualties could still easily reach into the low tens of millions.³⁶ So long as the world is locked into a threat system that includes nuclear weapons, there is no practical alternative to preparing to wage nuclear war as effectively as possible. Fortunately, there is every reason to believe that probable high proficiency in war-waging yields optimum deterrent effect.

With further respect to the integrity of PD 59, and indeed of the whole trend in targeting and deterrence thought in the late 1970’s,³⁷ it is difficult to quarrel with the proposition that the United States should place at risk those assets of highest value to the Soviet state. Preeminently that translates into the requirement to threaten the coercive instruments of Soviet state power, and the political control apparatus of that power. More generally, the external defeat of some elements of the Soviet armed forces should shake the awe in which the power of their state is held by Soviet citizens, and should, in Moscow’s war deliberations, promote an acute anxiety over the prospects for military success and fear of military failure.

In addition, quite aside from the deterrent value of threatening Soviet military, paramilitary, and policy assets, such targets (together with political control nodes and war-supporting industry) should be accorded the highest priority for potential elimination

because, by and large, they constitute the direct threat to the United States. I have no interest in effecting the *ex post facto* punishment of collective Soviet crimes; I am simply interested in degrading the physical ability of the Soviet state to do us harm.

PD 59 endorses the idea of holding the Soviet political control structure at risk, but such a threat may be conceived in two very different perspectives.³⁸ First, a large counter-control strike could be attempted, very early in a war, as an essential component of the damage-limitation endeavor. If Soviet forces cannot be commanded centrally, perhaps they cannot be employed. Or, to take a second perspective, one could conceive of the large counter-control strike as constituting the functional equivalent of the old urban-industrial assured-destruction strike. Such a strike could be withheld as the United States’ ultimate threat to the Soviet Union. To date, the US strategy and targeting community has not thought through just what the proper role of counter-control threats should be, just as the technical feasibility of such a strike remains yet to be demonstrated convincingly.³⁹ Nonetheless, its deterrent potency as a threat in Soviet minds cannot seriously be doubted.

PD 59 envisages the possibility of protracted war, but the plausibility of this idea remains weak. It is no exaggeration to say that the official US defense community has accepted the necessity for endurance in strategic forces and C³I, but it has not thought through how or why such a war would unfold. Indeed, given Soviet targeting style, the idea of, say, a six-month central war requires considerably more persuasive arguments in its support than have been adduced thus far. Overall, the defense community appears to have endorsed the words “protracted war,” and has been fascinated by the technical issues associated with survivability and endurance of military assets, but has yet to conduct the careful battle analysis which might support the new intellectual fashion.⁴⁰

Contrary to appearances, perhaps, I am friendly to the idea both of counter-control targeting and of preparation for the

possibility of protracted war. However, these ideas are approaching a fashionable status that neither reveals their thin analytical base nor much encourages critical and imaginative inquiry.

As Winston Churchill once said, "It is sometimes necessary to take the enemy into consideration." Soviet targeting intentions are, of necessity, a mystery. American defense analysts do not know for certain just how inventive and pragmatic Soviet leaders would be in practice. We do not know whether Soviet leaders would execute a somewhat inflexible war plan in a rigid way, or whether they would insist upon flexibility and instant responsiveness as invited by unique and possibly unforeseen circumstances.⁴¹ Nonetheless, study of Soviet strategic "style" and inferences from Soviet programs, behavior, and writings do provide a dominant model of Soviet targeting practice. On the evidence, which admittedly is quite incomplete, the United States should anticipate a Soviet central war campaign that accords closely with traditional military criteria, as opposed to a campaign dominated by "bargaining" steps during an escalation process.⁴² We should expect the Soviet Union to seek to neutralize American military power "in being," political and military control of that power, and military mobilization potential. While Soviet targeters are supposed to be sensitive to the issue of unwanted collateral damage to their enemies, there is no good reason to believe that any significant short-term military price would be paid in an effort to keep such collateral damage to a low level. In short, the dominant Soviet concern would be to win the war.

While the US government, through its targeting design, threat, and execution sequencing, might be able to influence Soviet war-fighting behavior, it is no less plausible to argue that the Soviet Union would fight a nuclear war in its traditional, military-goal-directed way. US defense planners must endeavor to provide incentives for Soviet war-fighting restraint, but plan upon the distinct possibility that, in the event, they may have no choices other than surrendering or fighting the war through to a military conclusion.

CONCLUDING CONSIDERATIONS

Contrary to Professor Beres' assertion,⁴³ there is nothing "provocative" about the targeting doctrine outlined, *and* implicit, in PD 59. To target the forces of the other side that can hurt you is simply common sense. Moreover, on the evidence available, counterforce targeting has long been a high priority in Soviet war planning. Beres' highly challengeable assertions concerning crisis and arms race stability⁴⁴ would translate, if ever the US government were sufficiently foolish to adopt them as policy guidance, into Soviet political leverage on a heroic scale.⁴⁵ His preference for a "reasonable countervalue strategic posture"⁴⁶ (undefined) would constitute a bluff, pure and simple, of no supportive merit for foreign policy. The United States could never, responsibly, execute such a threat (we would know it, and the Soviet Union would know we knew it!). At the technical level, it is highly unlikely that the "reasonable countervalue" threat, even if credible (which it would not be), would suffice to deter a truly desperate Soviet leadership.

The crisis instability charge against PD 59 fails for several reasons. First, as Richard Burt has argued, it is reasonably clear, on the historical evidence, that acute concerns about essentially "mechanistic [or technical] instabilities" are profoundly apolitical and are distinctively American.⁴⁷ However World War III may happen, one of the least likely outbreak scenarios is the one involving "the reciprocal fear of surprise attack."⁴⁸ Nuclear war is too serious a business for the most important political decision in Soviet history to be taken on the basis of general staff technical assessments. Second, even if Beres' instability logic be granted for the sake of argument, how could it be provocative to threaten Soviet ICBMs with *survivably based* American ICBMs? If American ICBMs could not be neutralized in a Soviet first strike, the Soviet silo-housed ICBMs would have no promising targets on American soil.

US targeting strategy continues as undeserving of the label of true *strategy* because what passes for strategy is developed quite apart from serious consideration of

damage-limitation issues. Furthermore, strategy, as reflected ultimately in force allocation and targeting design, continues to be developed in unhealthy isolation from the weapon development and acquisition process and from arms control policy. Major issues of technical feasibility lie in PD 59's emphasis upon counter-military and counter-political targeting, though the proper role of counter-political targeting is still stuck on the nursery slopes of understanding. For all that, PD 59 marks a useful step toward an intelligent US war-fighting targeting strategy for deterrence.

NOTES

1. A point made strongly in Henry Kissinger, "The Future of NATO," *The Washington Quarterly*, 2 (Autumn 1979), 6.
2. PD 59, as of 25 June 1980, presented the outline of a revised (or new, depending upon interpretation) nuclear targeting doctrine. For the original (planned) leak to the press, see Richard Burt, "Carter Said to Back a Plan for Limiting Any Nuclear War," *The New York Times*, 6 August 1980, p. A6. Also see Richard Burt, "The New Strategy for Nuclear War: How It Evolved," *The New York Times*, 13 August 1980, p. A3.
3. Louis R. Beres, "Presidential Directive 59: A Critical Assessment," *Parameters*, 11 (March 1981), 23.
4. *Ibid.*
5. *Ibid.*
6. *Ibid.*
7. Harold Brown, Speech at Newport, R.I., 20 August 1980, p. 5.
8. The appalling fragility of US C³I has been recognized officially for several years. However, for so long as the US government anticipated a general nuclear war to be a very short-lived event, it was less than obvious why a great deal of money should be spent on the endurance of forces and C³I.
9. See Joseph D. Douglass Jr. and Amoretta M. Hoerber, *Soviet Strategy for Nuclear War* (Stanford, Calif.: Hoover Institution Press, 1979), pp. 12-13.
10. See Colin S. Gray, "Nuclear Strategy: The Case for a Theory of Victory," *International Security*, 4 (Summer 1979), particularly pp. 65-67.
11. See Walter S. Mossberg, "Fighting a Nuclear War," *The Wall Street Journal*, 27 August 1980, p. 14.
12. Speech at Newport, R.I., 20 August 1980, p. 6.
13. For an excellent discussion see Desmond J. Ball, *The Strategic Missile Programme of the Kennedy Administration, 1961-1963*, unpublished Ph.D. dissertation (Canberra: Australian National Univ., 1972), pp. 46-50, 273-300.
14. Henry S. Rowen, "Formulating Strategic Doctrine," in *Commission on the Organization of the Government for the Conduct of Foreign Policy*, 4, Appendix K (Washington: GPO, June 1975), 231.
15. *Ibid.*, p. 225.
16. *Ibid.*, p. 232.
17. A useful account of the evolution of official thinking is Henry S. Rowen, "The Evolution of Strategic Nuclear Doctrine," in *Strategic Thought in the Nuclear Age*, ed. Laurence Martin (Baltimore: Johns Hopkins Univ. Press, 1979), pp. 131-56.

18. See Lynn E. Davis, *Limited Nuclear Options: Deterrence and the New American Doctrine*, Adelphi Paper No. 121 (London: International Institute for Strategic Studies, Winter 1975-76).

19. See Desmond Ball, *Déjà Vu: The Return to Counterforce in the Nixon Administration* (Los Angeles: California Seminar on Arms Control and Foreign Policy, December 1974), pp. 10-14.

20. Leon Sloss headed a small office in the Office of the Secretary of Defense in 1977-79 charged with leading the strategic nuclear targeting review.

21. Which is not to say that the Soviet Union does not welcome the measure of strategic advantage that relative US inactivity in the 1970's has accorded her. See Seweryn Bialer, *Stalin's Successors: Leadership Stability and Change in the Soviet Union* (Cambridge, England: Cambridge Univ. Press, 1980), ch. 12.

22. This argument is developed in Gray, "Nuclear Strategy: The Case for a Theory of Victory."

23. See Colin S. Gray and Keith B. Payne, "Victory Is Possible," *Foreign Policy*, 39 (Summer 1980), 14-27.

24. Speech at Newport, R.I., 20 August 1980, p. 2.

25. See Douglass and Hoerber, *Soviet Strategy for Nuclear War*. I am also indebted to William T. Lee for the work he has conducted on this subject for many years.

26. Beres, "Presidential Directive 59," p. 26.

27. *Ibid.*

28. *Ibid.*

29. *Ibid.*

30. *Ibid.*, p. 27.

31. See Richard Burt, "Reassessing the Strategic Balance," *International Security*, 5 (Summer 1980), 49-50.

32. In human and economic terms, The Great Patriotic War was a catastrophe for the USSR, thereby demonstrating that some catastrophes are survivable. Even if one could guarantee to effect catastrophe, deterrence would not, *ipso facto*, be assured under all possible circumstances.

33. Beres, "Presidential Directive 59," p. 22.

34. Probably the best defense of an indefensible position (i.e. mutual assured destruction as preferred policy guidance) in this regard is that of Robert Jervis, "Why Nuclear Superiority Doesn't Matter," *Political Science Quarterly*, 94 (Winter 1979-80), 617-33.

35. For a brilliant brief essay on strategy, see Edward N. Luttwak, "On the Meaning of Strategy . . . for the United States in the 1980s," in *National Security in the 1980s: From Weakness to Strength*, ed. W. Scott Thompson (San Francisco: Institute for Contemporary Studies, 1980), pp. 259-73.

36. See US Congress, Office of Technology Assessment, *The Effects of Nuclear War* (Washington: GPO, May 1979).

37. See Desmond Ball, *Developments in U.S. Strategic Nuclear Policy Under the Carter Administration*, ACIS Working Paper No. 21 (Los Angeles: Center for International and Strategic Affairs, UCLA, February 1980).

38. On counter-control targeting, see Jeffrey T. Richelson, "The Dilemmas of Counterpower Targeting," *Comparative Strategy*, 2 (1980), 226-27, 229-33; Colin S. Gray, "Targeting Problems for Central War," *Naval War College Review*, 33 (January-February 1980), 12-15; and George H. Quester, *New Alternatives for Targeting the Soviet Union*, DNA 5047T (Washington: Defense Nuclear Agency, 31 July 1979), *passim*.

39. Research is well launched on the issue of just what the Soviet control structure consists of as a potential target. A useful introduction to this topic is William and Harriet Scott, *The Soviet Control Structure*, Final Report, SPC 575 (Arlington, Va.: System Planning Corporation, April 1980).

40. One can trace fashions in targeting and conduct-of-war ideas over the past 20 years.

41. On balance, I am inclined to agree with Jack Snyder's judgment that "based on what is visible to the outside observer, Soviet crisis decisionmakers would appear intellectually unprepared for real-time improvisation of a doctrine of intra-war restraint" (*The Soviet Strategic Culture: Implications for Limited Nuclear Operations*, R-2154-AF [Santa Monica, Calif.: Rand, September 1977], pp. 39-40).

42. Many, and probably most, Western defense commentators have chosen to model hypothetical nuclear wars as processes of "violent bargaining" rather than as wars. I do not believe this approach is at all congruent with Soviet style.

43. Beres, "Presidential Directive 59," p. 24.

44. *Ibid.*, pp. 24-25.

45. I have criticized still orthodox, and I believe fallacious, stability theories in my article, "Strategic Stability Reconsidered," *Daedalus*, 109 (Fall 1980), 135-54.

46. Beres, "Presidential Directive 59," p. 26.

47. "Arms Control and Soviet Strategic Forces: The Risks of Asking SALT to Do Too Much," *The Washington Review of Strategic and International Studies*, 1 (January 1978), 22.

48. Thomas C. Schelling, *The Strategy of Conflict* (Cambridge, Mass.: Harvard Univ. Press, 1960), the title of ch. 9.

