ONE AMERICAN PERSPECTIVE ON NUCLEAR GUARANTEES, PROLIFERATION, AND RELATED ALLIANCE DIPLOMACY

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I. A DISCLAIMER

One American Perspective does not mean "The" American Perspective. This paper cannot, and does not, present an official opinion, nor can it do justice to the wide diversity of thought in America. Because the topic poses many difficult issues, many contending opinions continually vie in the United States for official acceptance.

One hastens to add that disputes arise when diplomacy and military postures are jointly considered in detail, owing to the complex inter-relationships among policy objectives and instrumentalities that must then be considered. A consensus about many general policy objectives, in contrast, can be taken for granted. Limiting the spread of nuclear weapons commands such wide and strong support that it is hard to find examples of serious dissent in the American literature. This, to all of us, is surely welcome.

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II. THE AMERICAN CONSENSUS: WHY?

Yet an unquestioned consensus does not clarify policy issues. Why is this goal of limiting nuclear spread so widely accepted? The question is not easily answered. More controversial goals in America generate volumes of public and official opinions, notably in the presentation of conflicting views before Congressional Committees. An American Administration, when anticipating widespread opposition to its policy proposals, normally proposes and defends a carefully explicit case. In this instance, scanty opposition has permitted the official rationale to be brief. Also, in the legitimate interests of defending future flexibility of action, the rationale tends to be general rather than specific.

For lack of a definitive explanation, one can only speculate about what generated this policy consensus among the American people. But no speculation should rest upon any body of sophisticated strategic doctrine. Most Americans, dreading nuclear weapons and appalled by the prospect that they might ever be used, share a powerful intuition that the fewer the number of nuclear powers, the better the chances that nuclear warfare will not occur. This judgment, of course, does not result from a supposedly rigorous calculation of compounded subjective probabilities that lead, somehow, inevitably to disaster. Nevertheless, right or wrong, this view strongly prevails as a political fact of life in America. And although it cannot be proved or disproved, the famed example of such reasoning was supplied by C. P. Snow — long enough ago to confirm its error in prediction as well as method — in an address to the American Association for the Advancement of Science, New York, December 1960, on "The Moral Unneutrality of Science":

We know with the certainty of statistical truth that if enough of these weapons are made — by enough different states — some of them are going to blow up. Through accident, madness, or folly — but the motives do not matter. What does matter is the nature of the statistical fact.... [This] is not a risk but a certainty.... Within at the most six years China and several other states will have a stock of nuclear bombs. Within at most ten years some of these bombs are going off.
it also appeals intuitively to this author’s common sense. Any proponent of a nuclear policy that would weaken America’s antiproliferation policy is handicapped, in any event, when he tries to counter this opinion by arguments in more sophisticated terms.

III. RESPONSIBLE CUSTODIANSHIP FOR MANKIND?

Probably intuitive dread about nuclear proliferation mainly accounts for the American policy consensus, rather than smug belief that the United States is especially meritorious as a nuclear power. Yet, even if they tend to be considered after rather than before casual decisions, moral judgments about nuclear proliferation, as about pregnancy, are fundamental. Virtue may have little to do with it, much as it should.

Moral agonizing, in point of fact, was prominent among Americans who had to decide during World War II upon undertaking a nuclear program and, worse yet, upon the manner of demonstrating the destructive power of nuclear weapons. Owing to required wartime secrecy, the relevant decisionmakers were few. Therefore no moral judgment about their decisions applies to the American people as a whole, who were uninformed.* But subsequent nuclear decisions are pertinent, as wartime expediency and secrecy no longer played dominating roles. Policies were established in the light of widely publicized information about the awesome effects of nuclear weapons, if not, of course, about manufacturing.

*The decision to embark upon the Manhattan Project can nonetheless be defended on moral as well as expedient grounds, in view of the possibility that Nazi Germany could be the first nuclear power. Even the decision to demonstrate the destructive power of nuclear weapons upon unwarned Japanese cities can be defended, if more dubiously and in other terms. The alternative of announcing a "demonstration" burst off the Japanese coast, designed to minimize casualties, held a serious risk that the planned detonation would not occur. A "dud" rather than a spectacular explosion as announced might have prolonged rather than shortened a bloody war, given the then-acute shortage of nuclear weapons for alternative use.
details. The record since 1945 stands open for your appraisal. Has the United States been a responsible nuclear custodian? Because answers come most appropriately from non-Americans, no net assessment is attempted here.

The test of one's responsibility toward neighbors applies even more clearly to those who have chosen not to acquire nuclear weapons. Their decision, unlike America's, could give full weight to moral issues, rather than be impelled by ongoing World War imperatives. How much weight? Historians will find it hard to weigh the relative importance of the motivations that have led, in particular cases, to deliberate nuclear abstention. Their interpretation should not be too cynical, however, even if the memoirs of statesmen overstate their nobility.

Many political leaders in all countries are deeply committed to global arms control. Their influence over colleagues is enhanced because all of them, as good politicians, know how parliamentary opponents can ridicule obvious inconsistencies in governmental policies and statements. In internal deliberations about possible nuclear programs, each participant will ponder the obvious questions: If our nation goes nuclear, why should others not? How does one rationalize a selective proliferation? Why is the magic number of nuclear powers "N plus us", rather than "N plus several"? The difficulty of developing persuasive answers reinforces the arguments of those who favor, in any event, a policy of self-restraint befitting their advocacy of global arms control.

Canada, especially for the United States, stands out. Her government could have followed the British and argued that joint participation in developing fissionable material during World War II entitled her to a continuing "special relationship" with the United States, even to the point of helping her develop a nuclear weapons program. When Canada deliberately chose an opposite course, she was the first to demonstrate that adequate resource capabilities do not necessarily lead to nuclear weaponry. And it seems clear that she remains powerfully impelled by a dedication to global arms control.
In the 1970s, Canada should assign a high priority to working to stop the arms race in nuclear and other weapons as a means of contributing to Canadian security and to a less dangerous world environment. In particular, Canada should not rest content to see the major nuclear powers determine exclusively the pace of progress or lack of it in the field of arms control. Rather, Canada should pursue these arms-control objectives persistently and imaginatively in the contexts of the United States consultations with Canada and its other NATO allies concerning the crucial Strategic Arms Limitation Talks, the Conference of the Committee on Disarmament in Geneva and the United Nations in New York.*

Her "nuclear allergy" at times even extends to a reluctance to deploy defensive weapon systems whose nuclear weaponry remains in U.S. custodial hands. U.S. defense planners find this Canadian allergy perplexing and constraining and yet, if anything, to be growing rather than decreasing. For example, the sweeping language chosen by Prime Minister Trudeau in replying to a question about his views on defensive nuclear weapons emplaced on Canadian soil -- "I am still opposed to the proliferation of nuclear arms"** -- implied unusually strict constraints upon NATO planning in Europe, as well as upon related joint U.S./Canadian planning for continental aerospace defense. Nonetheless, despite its occasional irksome implication of a lesser Canadian contribution to joint defense, the pronounced Canadian non-proliferation policy is surely welcomed by the United States as an exemplar.

IV. WHAT STRATEGIC DOCTRINE FOR RESPONSIBLE CUSTODY?

How then is the United States to contribute to global arms control as a responsible neighbor? The answer usually encountered is certainly

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oversimplified, and in some critical respects, wrong. Its general terms are familiar:

The NPT should start to "bite" by early 1972, with the implementing of its basic safeguards systems. But there is little prospect of its effectively curbing the spread of nuclear arms unless the two superpowers soon show that they would curb their own arms race.*

Conspicuous limits are sought on "vertical" proliferation by the two superpowers of their strategic weapon systems, to match the requested NPT limits upon "horizontal" proliferation by other powers.** The prevailing view seems to be to seek a speedy SALT agreement that would (1) limit the numbers of offensive strategic missiles and bombers on both sides near or below current levels, (2) virtually eliminate ballistic missile defense (BMD) systems, and (3) preclude, in particular, modernizing offensive missile warheads to incorporate Multiple Independently Targetable Reentry Vehicles (MIRVs)*** and greater accuracy.

This opinion merits close scrutiny. Quantitative mutual limits upon strategic systems, in broad terms, are surely desirable. Why waste rubles and dollars concurrently? And carefully drafted limits can increase "stability" in the bipolar strategic balance, as they can lessen grounds for fearing mass nuclear attack, without other adverse impacts. But, to deter best the spread of nuclear weapons -- to put the theme of this paper summarily -- some modernization is desirable in the strategic programs of the two superpowers, despite adverse psychological reactions abroad about alleged "vertical"

*The Economist*, November 7, 1970, p. 3.


proliferation. And the United States, in this one critic's view, is currently curbing some of the relevant modernization programs too much, if anything, rather than too little.

This view will subsequently be clarified and defended, mainly in the unpleasant *Realpolitik* terms of influencing the incentives and costs that face possible proliferators. Yet, having acknowledged moral issues as primary, we should at least note a paradox about the popular "no vertical proliferation" position. It stresses bipolar strategic "stability" via arms limits that reduce the vulnerability of strategic forces (no "first-strike" capabilities) and that further guarantee the vulnerability of hostage populations (better "second-strike" capabilities). It thus, in effect, lends moral sanction to strategic planning that would center upon population-destroying capabilities ("Assured Destruction").

Perhaps it requires one trained as a theologian as well as a political scientist to point out the resulting moral dilemma: "This is to take noncombatants as hostages, a policy forbidden by all traditional codes concerning the just use of force."* Burns' theme is unique in the current strategic literature: "Given the 1970 situation, the 'military targets only' deployment may be nevertheless the least evil of the choices in practice open to the government of a nuclear power and therefore obligatory for it."** "Obligatory" is much too strong a term. Nonetheless, once rescued from his own overstatement of current superpower strategic doctrine (at least of American doctrine),*** Burns' theme commands attention. Strategic

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**Ibid., p. 15, emphasis added.

***"Either nuclear pacifism or a nuclear deployment that carefully avoids enemy population and minimizes fall-out, must seem a kind of utopian quixotry and, from the public-relations angle, worse -- a direct opposition to the nuclear-strategic doctrines of the superpowers." Ibid., p. 19.
doctrine should relate, wherever possible, to the least barbaric of
effective arms employment. Such employment, in the interest of deter-
ring the spread of nuclear weapons, may sometimes be shown to be the
most efficient one among feasible choices, as well as the least immoral.

V. COMPETING STRATEGIC DOCTRINES

Superpower strategic doctrine, when translated beyond rhetoric
into the full spectrum of required capabilities, obviously can affect
the incentives of allies, and of neutrals under the umbrella of super-
power nuclear guarantees, to undertake national nuclear programs. The
incentives relate to the much-debated credibility issue about nuclear
guarantees. The impact of superpower strategic doctrine upon the
costs of prospective nuclear programs receives less attention, but
may be equally important. These costs have tended to be discussed
mainly in other terms of trade and trade-related secrecy restrictions
by nuclear powers, however, that hinder nuclear acquisition by others.*
Such restrictions continue to be important in non-proliferation policy.
They are powerful because, contrary to prevailing folklore, the tech-
nological demands of nuclear weapons programs are so specialized that

*That one of the current minor nuclear powers (the United King-
dom, France, or the Chinese People's Republic) might circumvent such
superpower measures by lesser trade restrictions has always loomed as
an ominous, but fortunately academic, possibility. Now, however, new
technology may tempt one or more of these powers toward subtle, but
important, modifications. For example, the apparent willingness of
the United Kingdom to make Australian self-sufficiency in enriched
uranium possible by 1980, by building a gas centrifuge separator
derived from the British-Dutch-German combined development, has been
aptly criticized by Leonard Beaton, because of its precedent in
facilitating proliferation, as "Sales Before Sanity," The Times
(London), May 27, 1970.

To be fair, one can also criticize the United States for occa-
sional inconsistencies in its policies. For example, KC-135 tankers
were sold to France to refuel its nuclear-capable bombers, although
possible related sales that would have helped the French program were
concurrently prohibited.
they yield few "spinoff" benefits to civilian economic development as partial compensation for their high costs. But superpower strategic programs can influence prospective nuclear acquisition costs even more powerfully.

These incentive/cost impacts can be illustrated, at risk of caricature, in terms of two alternative strategic packages or "models," each internally consistent with respect to governing concepts, objectives, and strategic weapon systems. Also, each is feasible for either superpower and is compatible with arms limits derived from SALT. The first is the oversimplified arms control model: the objective for strategic force structure planners would be high confidence in possessing, even under the worst of conceivable wartime conditions, Assured Destruction capabilities that could, in retaliation, destroy a high percentage of anyone's cities. Other objectives would not influence strategic procurement; instead, any others would be pure by-products (i.e., obtained at zero marginal cost).

The second model for strategic design would have multiple objectives -- with some Assured Destruction capability, of course, as one. Consequently, strategic planners would from the outset have to consider attaining more of one objective -- given realistic total budget constraints -- at the expense of another. Specifically, the possibilities of applying a lesser degree of "high confidence" in Assured Destruction capabilities to meet a stated quantitative standard, as well as reducing the quantitative standard for Assured Destruction, would be open to choice. The standard against the "Highest Expected Threat" projected might, for example, be put at one-third rather than "about three-quarters" of the other superpower's industrial capacity.


To escape current debate about this standard, the source is Secretary of Defense Clark M. Clifford, The 1970 Defense Budget and Defense Program for Fiscal Years 1970-1974 (January 15, 1969), p. 49. One should note that this standard would translate, imprecisely, into a smaller damage capability against the less tangible "Greater-than-Expected Threat." The measure against industrial capacity rather than population has been chosen as (1) less distasteful and (2) more reliable, because people can move more quickly than factories.
A lesser degree of confidence is harder to illustrate concretely. Yet, in practice, it could probably reduce the resources required for Assured Destruction capabilities even more than setting a lower standard of potential destruction. The released resources could then be diverted to other strategic objectives.

Realistically, at least for the United States, these other objectives would not include a Damage Limiting capability "to reduce the potential damage of a [major] nuclear attack upon the United States through the use of both offensive and defensive weapons, [because] ... we still see no practical way in which to do this against the kind of attack the Soviets could potentially mount in the 1970s." Therefore neither of our two models for strategic design implies "destabilizing" the bipolar strategic balance. For the United States, the demise of a major Damage Limiting capability cannot be pinpointed in time, mainly because, as in our first model, it was more a by-product of "retaliation-conservative" planning philosophy for Assured Destruction than a prominent objective in its own right. If one hedges against possible but unlikely superenemies of a distant future by procuring strategic forces to meet them, some redundant capabilities are likely to be discovered as time unfolds to disclose a formidable, but not super, foe. Such, precisely, was the arms "action-reaction" spiral that Secretary McNamara perceived as the unfortunate outcome of his own planning methods, unless and until assurance against the emergence of superthreats was achieved.

Also, the result of such planning methods, beyond generating redundant capabilities for the one objective, is that the proportion of total strategic capabilities surviving attack under conceivable crisis conditions would, in all probability, be much larger than that calculated for the "worst case" surprise attack conditions. Yet, for advance force structure planning purposes, the "worst case" governs the

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**Then Secretary of Defense Robert S. McNamara, *The New York Times*, September 19, 1967: "Thus, in the course of hedging against what was then only a theoretically possible Soviet buildup, we took decisions which have resulted in our current superiority.... It is precisely this action-reaction phenomenon that fuels an arms race."
calculations. Accordingly, the United States in the early 1960s found itself with appreciable by-product Damage-Limiting capabilities that, for political worth in a war of nerves, constituted genuine strategic superiority. Such U.S. superiority will not, in all probability, reemerge. It was a historical accident that resulted, first, from American calculating methods stressing very high confidence for the Assured Destruction objective, and, second -- if Dr. Kaliadin will forgive the bluntness -- of mystifying Soviet delay in reducing the vulnerability of their strategic forces. Since then the Soviets have decisively removed their inadvertent contribution, as was expected by American planners: "In the late 1950s and early 1960s, assured destruction was also the principal criterion. There was a change in emphasis that occurred between, say, 1962, and 1965 or 1966 ... [that] came largely from the evolution of the Soviet forces." Whether, as the other contributor, U.S. strategic force planners will continue to focus so overwhelmingly upon high assurance in achieving retaliatory capability against cities that other objectives are slighted remains a possibility. Acute defense budget stringency in America now tends to push military planners toward fewer objectives, not more.

Why not? If major Damage Limiting capabilities are deemed infeasible, what other objectives remain? For our second strategic model, the added objective would be strategic preparedness, considering both offense and defense, for small but precise nuclear operations. This objective would include:

1. Capabilities for global surveillance and communication, under all conditions, that would permit political leaders to retain control over any nuclear operations. Such capabilities must permit positive political control without precluding timely effectiveness in military operations, which is a stringent standard.

(2) Planning capabilities that can both provide a variety of preplanned limited nuclear retaliatory options for possible adverse contingencies, and, which is still more demanding, develop appropriate plans speedily under crisis conditions. The preplans may fail to supply an appropriate option in an emergency.

(3) Operational flexibility and modernity that would permit strategic offensive forces to implement a chosen option speedily, with whatever precision (e.g., accuracy) is required.

(4) Continent-wide aerospace defenses so "thin" that they would be inadequate against mass superpower attack, but that would provide good attrition against small attacks, whether accidental or deliberate, especially if the attack happened to be unsophisticated.

Our second strategic model, in short, emphasizes the theme of Controlled Nuclear Response that was prominent in the early 1960s, but disassociates it from major Damage Limiting Capabilities as a strategic objective. No linkage between the two was ever necessary in concept or execution, as noted at the time.* Now, unlike the

*E.g., M. W. Hoag, "Nuclear Policy and French Intransigence," Foreign Affairs (January 1963), pp. 8-9:

In describing this novel possibility in our nuclear policy, we had best avoid the term "counterforce." Traditionally this term has implied the all-out strike, with city destruction regarded as a bonus rather than a disadvantage. The opponents of traditional counterforce forecast dimmer and dimmer hopes that it would be effective, and because it cannot confidently be expected to be nearly 100 percent effective, they dismiss it as an acceptable strategy. But as the enemy's retaliatory capability becomes less vulnerable to the classic counterforce strategy, city-sparing becomes more important, not less so. If a nation is sure that hitting the enemy all-out will lead to intolerable retaliation, then it must aim to induce restraint
special circumstances of the early 1960s, clear disassociation is imperative. For, if Controlled Nuclear Response were to be everywhere coupled with major Damage Limiting capabilities in guiding strategic force structure calculations -- as published American defense statements seem already to have led some foreign strategists to believe to be the case -- rejecting major Damage Limiting capabilities as infeasible would, incidentally, imply abandoning many qualitative attributes essential for preparedness for "small attack" contingencies. Measures to handle the "small" cases, at much lower cost than major Damage Limiting, would then never emerge as an alternative "package" in the planning cycle. This "package" of measures would simply be overlooked.

This result, to judge from the arms control literature, would meet with general approval. Should it? The question at least has not already become academic. The strategic options that Controlled Nuclear Response doctrine introduced into American plans were not automatically eliminated by the developments that downgraded Damage

in the enemy rather than to reduce his capability. It may well choose to do so by restrained counter-military attack -- even when many enemy forces are thought to be invulnerable -- as the best of bad gambles in a situation that is almost by definition desperate.

The novel aspect of possible American nuclear strategies rests on the concept of what not to hit. The estimate of what, specifically, it is feasible to hit may change, although common sense suggests that no collection of military targets is likely to be composed entirely of targets that are either very difficult or very easy to destroy. At any moment of time there will be a mix. Consider the strategic retaliatory program that we know most about -- the American. Now and in the foreseeable future it contains some soft, fixed elements that are expected to be vulnerable, as well as some that are hard or mobile; and no doubt it contains some elements that are not expected to be vulnerable but will unfortunately turn out to be so. Unless the enemy is in magically better shape, a city-sparing attack against him will not lack for important targets.

* Notably, A. L. Burns, op.cit.
Limiting. Now the options could be narrowed or eliminated. Or they could be increased and refined.

Refinement alternatives, however, face other formidable obstacles. For example, accurate delivery is highly desirable for most conceivable small Controlled Nuclear Responses, because relatively small detonations can then suffice to destroy the target(s), while minimizing unwanted collateral damage to civilians. Oversimplified arms control debate tends to overlook this desirable attribute, while greatly exaggerating undesirable destabilizing impacts upon the superpower strategic balance, e.g.:

Secretary Laird has openly acknowledged that MIRVs are to be targeted against Soviet missiles. On several occasions this spring, he asked for an increase of over twelve million dollars in funds "to improve significantly the accuracy of the Poseidon missile, thus enhancing its effectiveness against hard targets." The total budgetary request for the Poseidon accuracy program came to over $45 million, bringing a three-year total to more than $70 million. This money is clearly directed toward our acquiring a counterforce, pre-emptive first strike capability.**

This allegation about purpose has been definitively and repeatedly refuted.*** Nonetheless, the popular view persists+ and sometimes


***Poseidon reentry vehicles had deliberately been designed to be small, in order that many vehicles per warhead could overcome possible enemy ballistic missile defenses, rather than to be large enough to incorporate yields that would make each Poseidon effective against hard missile silos. More generally: "There is no current United States program to develop a so-called 'hard target' MIRV capability," Letter of President Richard M. Nixon to Senator Edward W. Brooke, December 29, 1969 (Press release of April 22, 1970), The New York Times, April 23, 1970, p. 13. For a definitive technical discussion of guiding design criteria for small U.S. reentry vehicles for its future missile warheads (in contrast to possible Soviet large vehicles), see Statement of Dr. John S. Foster, Jr., Director of Research and Engineering, Department of Defense, before the Subcommittee on National Security Policy and Scientific Development of the House Committee on Foreign Affairs, U.S. Congress, August 5, 1969.

+E.g., the "Hard Target Killer" editorial in The New York Times, December 23, 1970, p. 26: "... a basic change may be underway in the
prevails. The Congressional critics of improved guidance for the Poseidon missile did not need to renew their attack in 1970, for instance, because the U.S. Department of Defense had already deleted funds for this purpose.*

In short, the strategic debate in the United States runs some current risk of foreclosure. But American decision makers can still be influenced, in their pertinent choices, by indications from non-nuclear powers about preferred doctrine and capabilities as well as from SALT negotiations. In either case, well-articulated views from abroad about what best deters nuclear spread will receive thoughtful consideration. In turn, foreign critics can then test how seriously the United States takes non-proliferation as a policy objective. The blunt test will be: How much, and in what ways at what cost, is the United States prepared to modify its strategic posture -- one hopes in parallel with the Soviet Union as an agreed SALT outcome -- in order to reduce nuclear spread?

VI. WHAT STRATEGIC DOCTRINE FOR NUCLEAR GUARANTEES?

Both in reducing complex strategic alternatives to only two models, and in the manner of comparing them, this paper has put issues prejudicially. One trusts that conferees will sympathize with the need for nation's defense policy -- from deterrence of nuclear war to [!] the long-discredited strategy of preparing to fight one.... a detailed Congressional examination of American strategic doctrine ... has now become an urgent and vital need."

* From Hearings on Military Posture, Committee on Armed Services, House of Representatives (91st Congress, Second Session), February 27-April 8, 1970, p. 7306:

"Mr. PHILBIN. You have a new guidance system that you proposed, and it apparently has been indefinitely postponed because of funding reduction. What is the effect of that? .... Are you going to have the same accuracy without this new system as you would have if you had it?

Admiral SMITH: No...
compression. If brevity suggests only two models, these, for the United States, are the realistic ones. But, when it comes to choosing between them, many conferees will quarrel with our thesis.

Putting this choice bluntly for appraisal in terms of influencing nuclear spread has the merit of clarifying the superpower arms control dilemma. The moral views of others are put in the balance, but not as the sole counterweight. As resource-capable states ponder going nuclear, statesmen who are moved toward continued self-restraint would welcome a sweeping SALT agreement that, by freezing superpower strategic arms in quality as well as in number, demonstrated superpower restraint. Such an agreement would also reinforce internal tendencies, at least in the United States, toward adopting our first strategic model. But what impact would such a development then have upon those in nonnuclear states who, when considering possible national nuclear programs, are influenced not so much by general moral views as by perceptions of the national strategic need and of likely resource costs?

To gauge alternative reactions, consider superpower adoption of the second strategic model -- again, one hopes, in the context of SALT

*A fuller discussion would, of course, have to consider an "Assured Destruction plus Major Damage Limiting" alternative. Pending arms control agreements more sweeping than any we have seen, it will always be relevant for military contingency planners to consider. But, as a candidate for adoption under current conditions by the United States, its cost, as noted, has been deemed too high by the previous and the present U.S. Administrations. Unofficial advocacy continues, of course, but unsuccessfully, e.g.: The National Strategy Committee of the American Security Council, The ARM and the Changed Strategic Military Balance, U.S.A. vs. USSR (Washington, 1969).

Other distinctly different models are intellectually interesting and need not be exorbitantly expensive. Superpower postures that would reverse the prevailing emphasis on offense in favor of defense are cases in point. However, as one of their careful proponents has noted, with respect to chances for official adoption in America, at least, "The intellectual resistance ... [is] quite massive." J. J. Holst, "Parity, Superiority or Sufficiency?", in Soviet-American Relations and World Order: Arms Limitations and Policy (London: The Institute for Strategic Studies, Adelphi Paper 65, February 1970), p. 25. The intellectual resistance, incidentally, arises fundamentally because critics doubt that high confidence can be attributed, when mass nuclear exchanges are considered, to calculations that show cost-effectiveness comparisons favorable to the defense.
agreement. Suppose that the numbers of strategic bombers and missiles, by type, were to be frozen or reduced, but their modernization (e.g., MIRVing of missile warheads) permitted. Further, suppose that ballistic missile defenses (BMD) were to preclude "thick" systems that appeared to threaten the other superpower's Assured Destruction capability, but allow "thin" BMD coverage of their entire homeland areas. This outcome is very likely to appeal less to those who oppose nuclear programs on moral grounds. Should it? In any event, it should give pause to those whose strategic cost-effectiveness analyses might otherwise lead them to advocate new national nuclear programs.

One exception should be noted immediately. Those who argue for nuclear retaliatory capabilities solely against feared nonsuperpower neighbors would not be influenced. Their limited objectives make superpower strategic postures irrelevant. Even so, consider how exceptional this case has to be. A nuclear program with precisely articulated objectives that remain constant over time would be unique. Once under way, a program's limited objectives may expand. This tendency would be affected by some superpower posture changes.

Consider the rumored possibility that one SALT result might be the restriction of Ballistic Missile Defenses to the protection of "National Command Centers" (Moscow and Washington?). Beyond the much-publicized point that such a restriction greatly eases the problem of achieving retaliatory missile capabilities against the superpowers, there might be repercussions with sweeping implications.

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* See Section IV of this paper and, in particular, the ethical arguments of A. L. Burns, *op. cit.*, when these are applied to feasibly "small" countermilitary operations that seek to minimize civilian casualties, as an alternative to attacks upon cities. Which, in his terms, is "the least immoral"?

** As reported, for example, by *The New York Times*, January 9, 1971, p. 1.

*** See Charles M. Herzfeld, "Missile Defense: Can It Work?", in J. J. Holst and W. Schneider, Jr. (eds.), *Why ABM* (New York: Pergamon Press, 1969), especially pp. 25-32, to the effect that (p. 25) "real" penetration aids against missiles defenses "are not cheap, are not easily developed, are not quickly procured and installed."
for superpower air defenses. If continent-wide air defense against mass superpower attack, like thick BMD, is deemed to be probably cost-ineffective and yet possibly effective enough somehow to threaten bipolar stability, why not abandon it? Or, by the same logic that would restrict geographic coverage against ballistic missile attack to National Command Centers, why not reduce air defense coverage comparably?

Continent-wide air defenses, even if designed only to cope with the spectrum of possible future "small" attacks, are not inexpensive either. If, however, they were to be abandoned, the effect upon cost-effectiveness calculations of would-be nuclear powers would be obvious. Acquiring nuclear weapons, even for a modest "neighbor-only" retaliatory capability, would already necessarily be an objective. Expanding the objectives to include delivery capabilities against the superpowers might then be achieved at modest cost. If a nation has a commercial fleet of Boeing 707 jet airliners, and has purchased a "Pod-Pak" for routine delivery by air of a fifth engine to outlying airfields for maintenance purposes, the requisite nuclear-capable delivery system may already be at hand.

Accordingly, the strategic model focusing solely upon Assured Destruction capabilities can, if carried to its logical extreme, greatly reduce cost barriers for possible nuclear aspirants. To the extent that they seek an "all-azimuths" retaliatory capability, the deterrents to proliferation would be weakened. With respect to effectiveness, the doctrinal impact would be equally important. It would reinforce the simplistically misleading strategic calculus that tends to promote nuclear spread.

If the superpowers were to affirm that hostage cities were the targets governing their strategic planning, then the Gallois-twowold logic would have greater appeal: (1) If use of strategic retaliatory forces implies loss, in reply, of one's city populations, surely the specter of losing 5 percent of one's citizens deters using such forces.

* Boeing Pod-Pak," Boeing Airliner (September 1959), Appendix B, p. 34. The author is indebted to Amrom Katz for the point and the reference.
almost as much as that of losing 50 percent; and (2) this deterrent applies even more strongly when strategic retaliatory forces would be used in response to an attack upon an ally or a neutral rather than to an attack upon one's own territory. If both themes are thought to apply to any use of superpower strategic retaliatory forces, their "nuclear guarantees" to allies and nonnuclear neutral nations might be found lacking in credibility. Greater credibility might then be attributed to employing national nuclear forces, if on a smaller scale.

The best way to refute allegations about the "incredibility" of nuclear guarantees head-on is to note that, if the superpowers were to implement the policy of city-sparing retaliation against military targets in the aggressor's country, the onus and obvious risk of initiating attacks upon cities (incredible?) would remain with the aggressor. His cities would still be hostage.** Any such aggression could

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*Beyond particular assurances to allies, the "guarantees" are those referred to in the Resolution approved on June 17, 1968, by the Security Council of the United Nations:

Bearing in mind that any aggression accompanied by the use of nuclear weapons would endanger the peace and security of all states,

1. Recognizes that aggression with nuclear weapons or the threat of such aggression against a nonnuclear-weapon state would create a situation in which the Security Council, and above all its nuclear-weapon state permanent members, would have to act immediately in accordance with the United Nations Charter;

2. Welcomes the intention expressed by certain states [Great Britain, the United States, the Soviet Union] that they will provide or support immediate assistance, in accordance with the Charter, to any nonnuclear-weapon state party to the treaty on the nonproliferation of nuclear weapons that is a victim of an act or an object of a threat of aggression in which nuclear weapons are used;

3. Reaffirms in particular the inherent right, recognized under Article 51 of the Charter, of individual and collective self-defense if an armed attack occurs against a member of the United Nations until the Security Council has taken measures necessary to maintain international peace and security.

(The New York Times, 18 June 1968.)

**This argument assumes that the initial nuclear aggression against an NPT signatory had not been directed at cities. If it were to be, superpower capabilities for precise countermilitary retaliation can
accordingly be made highly improbable, with superpower capabilities for Controlled Nuclear Responses supplying credible deterrence against any threats (nuclear blackmail) of others to use nuclear weapons against an NPT signatory. The chance that any such threat might actually be carried out, followed in turn by superpower retaliation and Country "X" retaliation against superpower populations, can be made to be the extremely unlikely product of a chain of improbabilities.

For example, nuclear blackmail by the Chinese People's Republic (hereinafter, China) can be deterred in this way — with, incidentally, secondary rather than primary contributions from thin superpower ballistic missile defenses. And so China and would-be emulators ought to be deterred:

Moreover, if the United States and the Soviet Union are to provide China's neighbors with an alternative source of security to that represented by national nuclear forces, it is important that they preserve their present military ascendency over China. If disarmament of the great powers is taken to the point where the guarantees they issue to the nonnuclear states are no longer credible, a more important bulwark against the spread of nuclear weapons than the treaty itself will have been removed.*

Suppose China were to contemplate using nuclear weapons against an Asian nonnuclear neighbor — say, against an air base to preclude the arrival of foreign military assistance. What deterrent array would the Chinese decisionmaker perceive? If the superpowers had adopted our second strategic model, each might have only limited numbers of missiles. But the number of separably assignable warheads (MIRVed) on each side would be more than adequate for reserve Assured Destruction capabilities, given the assurance (via SALT?) that thick superpower missile defenses need not be penetrated. The MIRVed warheads not needed for this reserve mission could be assigned to buttressing theater (overseas) forces, as visible additional

always be diverted to the technically easier mission of retaliation in kind against cities, in whatever magnitude is deemed desirable, plus appropriate countermilitary measures.

reinforcements for superpower nuclear guarantees. For this purpose, several technical attributes would be pertinent: lower cost per assignable warhead to target; greater accuracy, permitting the effective use of air-burst, low-yield weapons instead of ground-burst, large-yield weapons, thus reducing unwanted collateral damage (e.g., radioactive fallout); and short tactical warning time from missile launching to detonation, amounting perhaps to zero tactical warning against non-superpower warning systems.

Our hypothetical Chinese decisionmaker might face a deterrent array, in sum, extending to a countermilitary capability against virtually the whole of his nuclear delivery sites. It could be used, moreover, in whole or in part, in such a way as to preserve Chinese cities as hostages while reducing collateral damage outside China (wind-carried radioactive fallout) to negligible proportions. Finally, if this Chinese decisionmaker were to ponder counterretaliation against superpower cities, he would face the final dismaying prospect. The surviving portion of his intercontinental delivery force is likely not only to be small but, equally important, disorganized. His counterretaliation, then, would face very dim prospects for penetrating thin superpower aerospace defenses. Why try for revenge, at the cost of inviting unnecessary destruction of one's cities? Especially, why try for revenge if, in the coldest of military calculations, even revenge appears to be unachievable? Upon whom, in sum, does the burden of "incredibility" rest which nullifies the effectiveness of nuclear blackmail? Surely, in this hypothetical case, upon China.

* In emphasizing the deterrent value of precision-tailored retaliatory forces against China over the complementary contribution of missile defenses, this view respectfully disagrees in emphasis, but not substance, with the official view expressed by Secretary of Defense Melvin R. Laird in Hearings, Safeguard Anti-Ballistic Missile System, Subcommittees of the Committee on Appropriations, House of Representatives (91st Congress, Second Session, May 22, 1969, pp. 15-16:

If one believes that a Communist China armed with a force of ICBMs could still be deterred by our overwhelmingly
This argument does not require superpower collusion as guarantee-enforcers. On the contrary, the argument gains in strength if superpower strategic programs remain different and are certainly uncoordinated, as is likely. Then attaining an "all-azimuths" retaliatory capability, whether for China currently or for another nuclear aspirant later, is made many times more than doubly difficult. Not only must the designer of strategic systems for such a capability consider its performance against two superpowers, not one; but, at each of many technical stages, he must concurrently solve the problems presented by two qualitatively different sets of superpower weaponry. For present purposes, only sample illustrations are needed.

First-generation Chinese missiles, like those of other existing nuclear powers, would be much more easily and cheaply sited at fixed greater strategic offensive forces, then an ABM defense need not be deployed against that threat.

This difference in emphasis arises because Secretary Laird's testimony here reflects, again, a concentration upon Assured Destruction as the objective (why?) of strategic retaliatory forces. He cites the relatively low vulnerability of the Chinese population; China's 200 largest cities contain only 9 percent of its population (cf. 55 percent for the United States and 34 percent for the Soviet Union). On the other hand, its nuclear forces may be relatively and absolutely vulnerable; in any event, its industrial capacity is relatively vulnerable. Its 200 largest cities account for 80 percent of industrial capacity (cf. 75 percent of such capacity for the United States and 62 percent for the Soviet Union). City-sparing retaliation against China on a limited scale could accordingly, at worst, concentrate upon the exposed industrial capacity least co-located with urban masses. No target problem precludes powerful deterrent effectiveness for strategic retaliatory forces against China.

Interestingly enough, a similar underemphasis upon the deterrent power that a well-designed offense could bring to bear upon China pervades A. Doak Barnett's "A Nuclear China and U.S. Arms Policy," Foreign Affairs (April 1970). He disputes our thesis as well as emphasis, trusting that superpower self-restraint in, inter alia, not building anti-Chinese ABMs, will be reciprocated because, as China achieves "a credible deterrent, Peking's leaders may be more inclined than at present to reassess their strategic policies and consider the value of [what?] arms control" (p. 442). So it might, as it calmed their fears about superpower intent; or so it might not, as it and related measures greatly decreased the price-tag upon an "all-azimuths" capability. Such, again, is the central dilemma for arms control.
than at mobile locations. If so sited, the standard solution for protecting the missiles is to put them underground in hardened silos — which, incidentally, neither superpower has found to be easy, quick, or cheap. Beyond the usual engineering obstacles, the Chinese strategic designers dominating headache would be, "How hard is hard?" If he achieves a degree of hardness that appears to protect his missiles against American MIRVed missile warheads owing to their smallness, he may still calculate that this degree of hardness does not protect his missiles against Soviet MIRVed warheads owing to their largeness. Superhardness that protects against both may be found to be prohibitively expensive, if not infeasible.

What, then, of abandoning fixed missile sites altogether in favor of mobile missiles? But truly mobile systems are considerably more expensive per missile. Whether protection is achieved by the particular kind of mobility used is always open to conjecture. One notes, in passing, that for achieving land-mobile systems, the Chinese limited transport network poses a serious constraint. For sea-mobile systems, they notably lack mid-Pacific bases that would permit them, in the American operating pattern for Polaris submarines, to exchange crews in order to enhance on-station time for their missile carriers. Also they would face formidable and qualitatively different Soviet and American antiship and antiaircraft capabilities.

Finally, a Chinese strategic designer may not be able to solve the problem of penetrating prospective aerospace defenses, even if he solves the problems of missile survivability prior to firing. As noted elsewhere* a good penetration aids against a modern set of aerospace defenses are not easy to achieve. When one remembers that the penetration aids that appear to be effective against one set of defenses (e.g., radars) may, by the same calculations, appear ineffective against another equally relevant set of defenses, the joint penetration problem for a country like China can be formidable if not insuperable.

*C. M. Herzfeld, op.cit., who additionally notes (p. 32) that for a country "to design and build high confidence penetration aids [it] must have research radars of sophistication and complexity comparable to the radars of the defense...."
This problem can be made more complex in general if the superpower offensive and defensive systems not only differ in qualitative character but change as modernization programs proceed. Then the strategic planner for a country like China faces a changing as well as a dual problem that calls for continual redesign. His resource barrier against acquiring an "all-azimuths" capability can not only be made to remain high, but possibly to become higher. If the superpowers achieve arms control agreement in accord with our second strategic model, they can realize mutual economies -- e.g., by limiting the number of offensive and defensive missiles. Yet, concurrently, the economies made possible by advancing technology (e.g., the lower cost per separately assignable warhead of MIRVed missiles, despite the higher cost per missile launcher) can make better capabilities possible against an "all-azimuths" nuclear aspirant. These capabilities can reinforce the credibility of nuclear guarantees, thus reducing incentives for proliferation. Equally to the point, they can ensure that the costs of an "all-azimuths" capability are made high, for the future as well as currently, in a manner that will be unmistakably plain to planners in all countries. Hence, in our view, they are desirable.

VII. WHAT IMPLICATIONS FOR ALLIES?

Our thesis may not trouble some allies, because they may already have determined that they will never seek national nuclear capabilities. Other allies may be upset, to say the least. Some neutral states may even be scornful. They may assume that superpower nuclear guarantees provide a security umbrella for them simply by virtue of United Nations membership. Yet at the same time they may desire a zero-vertical proliferation outcome from SALT negotiations; which, incidentally, makes nuclear programs of their own more feasible. The differing impacts on foreign policy need to be distinguished.
One important point comes first, however, because it applies to most cases. For protecting allies and NPT signatories against non-nuclear threats from nuclear powers, conventional defenses, ideally, would be adequate. Then alternative nuclear responses might be considered, but not necessarily. Contingency planning could be confined to cases fitting a "no-first-use" nuclear doctrine. The likelihood of the use of nuclear weapons by any state might then be perceived to be low. As a practical matter, however, political unwillingness to provide adequate conventional defenses characterizes the alliances to which the United States stands committed. Nuclear responses to some conceivable nonnuclear attacks must then be relied upon.

Some of us happen to advocate improved conventional defenses as the most constructive way to lessen danger, while lessening quarrels over nuclear doctrine. Such advocacy, as it may imply a rebuke to national defense efforts, come more appropriately and helpfully from one's own citizens than from abroad. And, as each ally has a conventional defense program of its own, such tactful self-criticism is possible as well as preferable. But comparable tact is not possible when criticizing nuclear policy. Certainly critics in nonnuclear states are as much entitled to a say about superpower nuclear doctrine as are critics from nuclear states. The criticism is necessarily one-way, however, which risks natural resentment. So be it. Constructive criticism from abroad should be welcomed, not least as reinforcement for constructive criticism at home. At the same time, because it abets irrationally passionate domestic criticism, ill-informed criticism from abroad imputing malevolence to anyone who reasons about alternative nuclear responses merits cold reply, viz.: If ever your country needs rescue, owing to a neglect of conventional defenses, better that it should be by a surgeon than by a butcher.

These harsh terms are deliberate, for the purpose of clarity rather than shock. For nuclear cooperation, clarity is the main

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*For credentials, all a critic need say abroad is that, however inadequately, he tried: e.g., "What New Look in Defense," World Politics (October 1969), pp. 6-16, 23-28.
constructive contribution that allies can provide. Political consultation about alliance military doctrine, including nuclear doctrine, should and can become a continuing and meaningful process. The cynics who view such consultation as merely an exchange of diplomatic courtesies are wrong. As perhaps best exemplified by the activities of the Nuclear Planning Group (NPG) in NATO, a forum can be created in which each ally can criticize nuclear doctrine constructively and thus effectively exercise its rightful privilege to influence that doctrine. As the safety of each ally is equally at stake, nothing less will do. Anything more, whether in terms of shared custody of some nuclear weapon systems or whatever, may then not be necessary. Or, if deemed to be necessary, the decision will then have been reached via substantively meaningful consultation.

Such consultation has by now, however belatedly, become routine:

The Nuclear Planning Group of NATO held its eighth half-yearly Ministerial meeting in Ottawa, October 29-30, under the chairmanship of Mr. Manlio Brosio, Secretary-General of NATO.

The Ministers of Defense attending the meeting from the permanent Member countries were Lord Carrington, Great Britain; Mr. Helmut Schmidt, West Germany; Mr. Mario Tanassi, Italy; and Mr. Melvin R. Laird, United States. The four rotating members were Mr. Donald S. Macdonald, Canada; Mr. Willem den Toom, Netherlands; Mr. Gunnar Hellesen, Norway; and Ambassador Cavalierato, Greece.

The Ministers discussed the balance of strategic forces and reviewed in particular changes which have occurred in the strategic nuclear capabilities facing NATO since their meeting in Venice last June. They also studied a series of papers covering policy issues on the whole of the Alliance's nuclear forces and on the defensive use of nuclear weapons, within the concept of flexibility in response which remains the basis of allied strategy.

Their decision will be forwarded for endorsement by Ministers of the Nuclear Defense Affairs Committee and subsequently by the Defense Planning Committee at their meetings in Brussels in December.

The Ministers reviewed the military planning and refined the political guidelines for the initial defensive tactical use of nuclear weapons which had been adopted a year ago. After completion of studies of the role of atomic demolition munitions they reached agreement on political guidelines to cover the possible use of such weapons.
In providing a continuing forum for allied consultation on nuclear matters, in which political and military considerations are closely inter-related, the Ministers re-affirmed the importance of the Nuclear Planning Group. If approved by the Nuclear Defense Affairs Committee and the Defense Planning Committee, the policy of the Nuclear Planning Group would permit military commanders of NATO to move atomic land mines close to potential crisis areas. This would decrease substantially the time between a request for permission to employ such weapons and any decision to do so.*

Nothing prevents such consultation in other alliances, bilaterally or multilaterally, as best fits the particular case.

The obvious prerequisite is shared knowledge about the effects of employing nuclear weapons. The superpower in question (here the United States) has a duty to provide the requisite information. In turn, recipient allies have a duty not only to absorb the information but to devote intellectual effort to pondering alternative defense doctrines. Once allies are fully informed, silly talk about nuclear weapons being a cheap "equalizer" for presumably hopeless inferiority in conventional arms should vanish. In fact, as the NPG experience attests, it does vanish in responsible intergovernmental discussions. For responsible journalists, it then tends to vanish also, which is an important advantage.

This intimacy of joint politico/military planning, exemplified in NATO by the NPG, has not led to a reversion to overreliance upon nuclear weapons. Rather it has led to a sober, shared appreciation of the need for balanced defense, as put by a distinguished European spokesman:

> It is only this [American] presence, by the way, which underpins the strategy of "flexible response." It has taken the members of the Atlantic Alliance many years to reach agreement on this strategy. It is reasonable and credible. There is no alternative to it. A return to massive nuclear retaliation would be incredible, as

would be a fallback on purely "tactical" nuclear defense --
the former being unimaginably cruel to the American, the
latter to the Europeans. The strategy of flexible response
is the only one which combines credibly effective deter-
rence with non-suicidal defense, sharing the risks of war-
fare in a fair way between North American and West Europeans.

Such responsible voices pose no problem for alliance harmony, even
in discussing nuclear doctrine. Disharmony, however, can arise. Other
spokesmen plead for a doctrine that, to put it bluntly, would let Euro-
pean allies have their "cake and eat it too."** Such, in this one
critic's view, is neither feasible nor desirable. If a united Europe
(how? when? ever?) desires its own nuclear defense, then of course
it can have it. At that time, this critic would counsel American dis-
engagement from such defense as not only possible and desirable, but
imperative.

To cite one proposal as an example, note that it starts with "the
European concern in halting the [superpower] strategic competition,"***
expressed in the same terms that fail to discriminate between qualita-
tive and quantitative dimensions that we have earlier criticized. In
short, it would inadvertently weaken U.S. strategic guarantees. Is
this in Europe's interest? And note where the proposal ends:

In so far as strategic weapons are concerned, Britain,
France and the United States might enter into a new set
of nuclear relationships. Collaboration on nuclear-
weapons technology between London and Paris would receive
the support of Washington as would the coordination of the
targeting of the two forces. In turn, their joint target-
ing plans would be coordinated with those of the United
States in the same manner as the British plans have been
coordinated in the past. In practice both the ultimate
command and control decisions, as well as the ownership
of the forces, would remain in the hands of the respec-
tive national authorities, although nuclear planning --

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* Helmut Schmidt [Defense Minister, the Federal Republic of Germany],
"Germany in the Era of Negotiations," Foreign Affairs (October 1970),
p. 42.
** E.g., Andrew J. Pierre, "Nuclear Diplomacy: Britain, France and
*** Ibid., p. 285.
both targeting and strategy -- would be a common undertaking. Britain and France would accordingly have three sets of target plans: "Alliance," "European" and "National," the latter in the unlikely event that independent action should ever be desirable.

The British and French forces might become subject to the advisory guidelines of a European Nuclear Committee (ENC) on which the non-nuclear countries would be represented. This would be of special importance to the Federal Republic of Germany as the only major West European power without an independent nuclear capability. The ENC would permit the formulation of a European perspective on planning for contingencies and political guidelines on the use of nuclear weapons. A unified European view might thereby be presented to the United States. The ENC would also be an appropriate forum for discussion of the problems associated with the next generation of the European nuclear forces. In time, if the notion that the British and French forces were truly "Europe's force" took hold, the non-nuclear countries might contribute to their maintenance either through joint production of delivery systems or through common financing. This arrangement would not involve a breach of the Non-Proliferation Treaty since it would not include a transfer of nuclear weapons, or of their control, to non-nuclear powers. [7]

The United States could assist such a European grouping in a number of ways. Britain might be released from some of the restraints of the Anglo-American nuclear agreement so as to permit it to exchange knowledge and materials with France. The ten American Polaris submarines to be converted for Poseidon missiles might be sold to the ENC with the understanding that they would be operated by Britain and France on behalf of Europe. A direct offer of technological help to Britain and France in the construction and maintenance of their nuclear forces would be the most important form of assistance. This would be of particular significance if they needed to acquire MIRVs in order to overcome a heavy Soviet ABM defense.*

If this be nonproliferation, may soberer voices preserve us from it. The essence of our thesis is that controlled nuclear response demands single unitary control at all times, especially with respect to what targets are not to be struck if -- God forbid -- nuclear weapons must ever be used. Whatever the facade of peacetime consultation,

to have "three sets of target plans" is to court chaos in times of actual crisis. One agreed set of plans is imperative. The forum for agreements exists: The NPG. To add an ENC is not merely superfluous, it is dangerous. One can fully sympathize with Western European pride that, matched with abundant resources, could provide self-defense -- at least an adequate conventional self-defense. If this alternative is adopted by a united Western Europe that somehow, sometime comes into existence, nobody will welcome it more than the American taxpayer.

One suspects that soberer voices will in fact prevail, in which case the United States has surely proved that it is prepared to play its responsible role in truly shared defense. Alliance relationships will, of course, evolve, and other nations will appropriately assume both a greater relative burden in the common defense, reflecting changed economic circumstances, and a greater intellectual role. But to best deter nuclear spread, let us hope that, through deeper mutual understanding -- as exemplified by the free exchange of views at this Conference -- we can proceed in step together rather than along divergent paths.