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WORKING PAPER NO. 3

ARMS CONTROL IN THE LATER 1980s:  
THE IMPLICATIONS OF THE  
STRATEGIC DEFENSE INITIATIVE

by

J.L. Richardson\*



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Canberra  
April 1986

National Library of Australia

Cataloguing-in-Publication Entry

Richardson, James L., 1938- .  
Arms control in the late 1980's.

Bibliography.

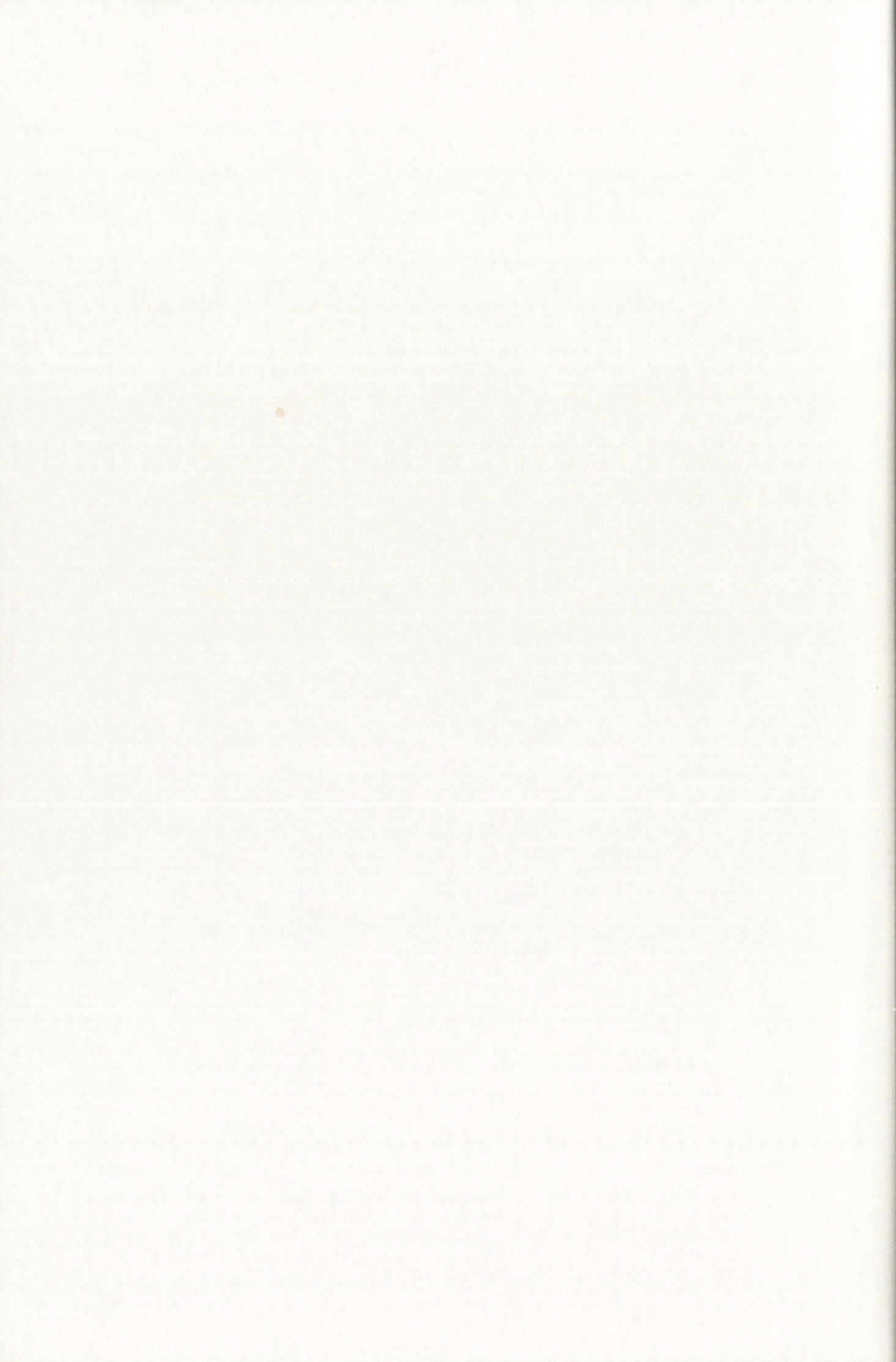
ISBN 0 86784 787 5. ISSN 0817-1831

1. Arms control. 2. Strategic Defense Initiative. I.  
Australian National University. Peace Research Centre.  
II. Title. (Series: Working papers (Australian  
National University. Peace Research Centre); no. 3).

327.1'74

\*I should like to thank Desmond Ball, Hugh Collins, Greg Fry, Andrew Mack and Sally Murray for comments and suggestions on an earlier draft, which was presented to a seminar in the Department of Political Science, Faculty of Arts, Australian National University in September 1985.

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## ABSTRACT

This paper examines the long-term prospects for progress in strategic arms control against a background of considerable pessimism amongst arms controllers themselves. The paper reviews current debates, paying particular attention to the arms control implications of the Reagan Administration's Strategic Defense Initiative (SDI). It questions Administration claims that the SDI programme will enhance the prospects for arms control in the long term.

Abstract

This paper examines the law-learn aspects for progress in statistical control against a background of considerable practical interest from controllers themselves. The paper reviews current debates paying particular attention to the state control implications of the Reagan Administration's Strategic Defense Initiative (SDI). It questions Administration claims that the SDI programme will enhance the prospects for arms control in the long term.

The discussion of arms control in the 1980s has been notable for the extent to which the record of the 1960s and 1970s and the conception of arms control itself have been subject to criticism: titles such as Arms Control: Myth versus Reality or Beyond the SALT II Failure have become commonplace.<sup>1</sup> It is entirely healthy that the lack of progress in the arms control negotiations has led to a lively public debate, but what is much less healthy is the level of confusion which is evident in that debate, not only over the reasons for the present malaise of the arms control negotiations but over the basic goals and the concept of arms control itself. Thus, while there is a widespread perception that the strategic environment is becoming more dangerous, the capacity to analyse the dangers is diminished, and this is especially true of the analysis of the implications of the most radical of the policies of the Reagan Administration, the Strategic Defense Initiative, the technical aspects of which have tended to dominate the discussion at the expense of the broader politico-strategic aspects.

The purpose of the present paper is to seek to clarify these implications by returning to the first principles of arms control, inquiring to what extent they should be modified in the light of experience, raising some questions concerning the arms control agenda for the later 1980s and in this context exploring those broader politico-strategic aspects of the SDI which have received insufficient attention in the debate up to the present.<sup>2</sup>

### The Need for a Return to First Principles

The present deadlock in the arms control negotiations is the culmination of a gradual process. Following the high point of the SALT I Treaty of 1972 and



the agreements in the immediately following years, American reluctance to ratify agreements was already evident in the case of the Threshold Test Ban Treaty of 1974 and the Peaceful Nuclear Explosions Treaty of 1976. After the invasion of Afghanistan, the Carter Administration withdrew the SALT II Treaty from the Senate's ratification process. Its terms were subject to sustained criticism at the time and have been condemned by members and supporters of the Reagan Administration, even though the Administration has in fact complied with the Treaty. Claims that the Soviet Union has violated earlier agreements and indications that a number of near-nuclear countries are close to acquiring a nuclear weapons capability have raised serious questions concerning the value of the arms control agreements of the 1960s and 1970s.

The strategic arms negotiations during the first Reagan Administration were dominated by the Soviet campaign against the deployment of Pershing and cruise missiles in Western Europe and were widely perceived as an arena for public posturing rather than serious negotiation; the only change evident during 1985 was that the Strategic Defense Initiative replaced Pershing and cruise missiles as the target of Soviet diplomacy.<sup>3</sup> Negotiations on a comprehensive nuclear test ban, half-heartedly pursued in the 1970s, were not resumed by the Reagan Administration. The arms control negotiations of the 1980s have borne little resemblance to the hard bargaining of the 1960s and 1970s, but rather recall those of the 1950s when, far from seeking agreement, the super-powers sought to manipulate public opinion through competing in the rhetoric and imagery of disarmament.

A number of different explanations for this state of affairs have been suggested. To some, it is the attitudes and policies of the Reagan Administration which are responsible for the deadlock: its profound aversion to the Soviet Union, its determination to break with the detente policies of its

predecessors, its readiness to equate negotiation with appeasement, its pre-occupation with modernizing the U.S. strategic forces. To others the responsibility rests squarely on the Soviet Union for its persistent arms build-up, its apparent pursuit of nuclear superiority, its non-compliance with earlier agreements and its attempt to manipulate Western public opinion rather than addressing the practicalities of arms control. A less familiar but more plausible hypothesis would emphasise the difficulty of achieving agreements due to the increasing complexity of the technological advances in strategic weapons systems: even under favourable political conditions technology is placing increasing obstacles in the way of arms control, and of course the political conditions have been anything but favourable.

Some analysts have sought to explain the breakdown in terms of fundamental structural features of the strategic balance. For example, William Kincaid suggests that it is the determination to preserve the "compellent" as well as the deterrent roles of the strategic forces which limits the scope for arms control, and Randall Forsberg argues that it is the role of extended deterrence, i.e. the policy of basing Western European security in the last analysis on the threat of nuclear escalation, which rules out significant reductions in American strategic weaponry.<sup>4</sup> Pursuing this line of thought, it may be suggested that the strategic arms negotiations have been coming up against even more fundamental constraints which have always impeded attempts to achieve disarmament: in particular, the problem of what armaments to include in an agreement and what to leave unregulated, and problems posed by the different geographical situations of the parties and by qualitative asymmetries and technological change. As a consequence of these asymmetries, equal arms limitations may have entirely different implications for the different parties; yet unequal limitations may be politically unacceptable.<sup>5</sup>

While there may be some force in each of these explanations in that each throws some light on the present situation, the present paper will examine a further possible explanation, viz. that all of the foregoing provide the context for the present deadlock but that a crucial element is missing: the neglect in the 1980s of the first principles of arms control as they were formulated a quarter of a century ago. The concept of arms control was developed as an alternative to the traditional approach to disarmament and especially to disarmament negotiations, with their excessively ambitious goals, their one-sided proposals and their degeneration from high aspirations through hollow rhetoric to blatant posturing. In the view of the arms controllers, the problems of the arms competition in the nuclear age were too serious to leave to the traditional disarmament negotiation process. They required not only a new style of negotiation but also a new concept of arms control, sharply distinguished from that mythical goal pursued in the 1950s without credibility or sincerity, general and complete disarmament.

#### The Basic Principles of Arms Control

The essentials of the theory of arms control, as formulated in several now-classic studies in the early 1960s, may be summed up under seven headings.<sup>6</sup>

i) The concept of arms control was broader than that of disarmament, which was concerned only with the abolition or reduction of armaments. Arms control included all limitations on armaments, unilateral restrictions as well as negotiated agreements, which were directed towards its essential goals. Thus, in addition to arms reductions, it would include for example a freeze at existing levels, the renunciation of specified new weapons systems, and restrictions on the deployment or use of existing weapons.

ii) The goals of arms control were generally taken, following Hedley Bull's analysis, to be to reduce the risk of war, especially nuclear war; to reduce its destructiveness, if it should occur; and to reduce the cost of preparedness (the burden of the arms race), in that order of priority. An important implication of this ranking of goals was that disarmament, the reduction of arms, was not necessarily desirable unless it could be shown as likely to promote the primary goal, reducing the risk of war. The arms control school did not assume, as the disarmers had tended to, that agreed measures of disarmament would ipso facto achieve this. In the same way, arms agreements were not desirable for their own sake, but for their consequences.

iii) The continuation of international political conflict was an explicit assumption of the arms control theory. With respect to the super-power conflict, the focus of most of the early writing, it was postulated that a settlement of the basic political issues was unlikely, but that nonetheless the two powers, aware of their common interest in avoiding nuclear war, should be capable of devising policies and even co-ordinating their actions in order to render it less likely that in pursuit of those rivalries they would exacerbate or inadvertently "escalate" particular conflicts in ways that would increase the risk of nuclear war. In so far as the arms competition or the mode of deployment of nuclear weapons could increase the incentive to use them in a tense crisis - the incentive to a pre-emptive strike - there was a shared incentive to avoid such situations. In the language of game theory, the super-power relationship was not a zero-sum game, cold war rhetoric notwithstanding. In the language of Soviet doctrine, peaceful coexistence was an imperative necessity of the nuclear age but it did not put an end to ideological conflict.

The arms control authors, in assuming the continuation of political conflict but a shared interest in measures (including but not limited to arms

control) for reducing the shared risk of nuclear war, postulated the continued need for a military balance between the super-powers, a thesis which was uncontroversial in the early 1960s. They also postulated, contrary to the conventional wisdom of much international relations writing, that arms control could to a significant extent be decoupled from the ongoing political rivalry: it did not, as disarmament is often said to do, depend on the prior settlement of the political rivalry, but rested on a shared perception of a common interest, despite that rivalry. Thus arms control was not initially advocated as promoting, or depending on, political detente in the way that these came to be linked in public discussion in the 1970s.

iv) Arms control was seen as having an integral relationship to sound military policy, not as a radically different basis for security in the manner of much disarmament thinking. This did not imply the acceptance of the military status quo, including existing force structures, deployments and plans, but did imply a detailed concern with precisely these matters with a view to eliminating those features which could (like the mobilization plans of the European powers in July 1914) introduce sudden pressures towards war which were not understood by the political decision-makers. The measures promoting arms control in this sense could be unilateral as well as negotiated agreements, and thus under Robert McNamara as Secretary of Defense the strategic reformers and arms controllers were indistinguishable, even though the term arms control was attached mainly to those concerned with negotiated measures.

v) International measures were taken to include informal understandings as well as formal agreements. This aspect of arms control thinking can be problematic, especially when extended to include the notion of tacit understanding: for example, is there a tacit understanding that each of the super powers refrains from directly attacking the other's armed forces? How can such

an understanding be verified? In principle, it is plausible that there may be informal, private agreements to accept certain restraints which could not be part of a formal agreement: it is likely that such understandings had their part in the settlement of the Cuban missile crisis, for example, but it is not clear that there are instances of informal agreements on arms control, despite the plausibility of the concept and the attractiveness of the idea that such understandings may be a by-product of the dialogue on strategic arms control.

vi) Although it was not a central tenet of the early arms control doctrine that arms control measures would normally be of limited scope, in contrast to the comprehensive agreements typical of traditional disarmament proposals, this may have been implicit and was certainly in the spirit of the doctrine. Arms control proposals were seen as a response to specific concerns, specific sources of instability, not as part of an endeavour to achieve structural change in the bases of national and international security. Arms controllers were prepared to argue explicitly against the proclaimed goal of general and complete disarmament on the grounds that its unrealism clouded the discussion of urgent practical measures and that its proclamation was an indication of a purely manipulative approach to disarmament negotiations and an obstacle to informed public debate.

vii) Given the focus on the avoidance of nuclear war by the super-powers, arms control writers came to emphasise two more specific, intermediate goals, strategic stability and crisis stability. The former refers to a situation, often termed stable mutual deterrence, in which a nuclear "first strike" is manifestly not a rational policy option for either super-power. The concept of crisis stability acknowledges the possibility that there could nonetheless under conditions of acute crisis be actions which cause a confrontation to escalate beyond the control of the decision-makers or incentives for a pre-emptive

strike, e.g. if the adversary were believed to be preparing to attack. "Crisis stability" refers to the situation where both kinds of incentive, to escalate and to pre-empt, are low. The focus on these goals in turn tended to reinforce the close link of arms control with American strategic doctrine of the 1960s and 1970s, in particular with the concept of an assured second strike, which under the rubric of "mutual assured destruction" (MAD) has come to be increasingly questioned in the 1980s. In principle, however, the goals of strategic stability and crisis stability need not be sought by one specific strategy rather than another: in principle, incentives to strike first, to escalate or to pre-empt could be reduced by other means, which might include deterrence through denial rather than through the threat of retaliation. Whether this is a real option, and whether a mixed offensive/defensive strategy would be preferable to mutual assured destruction, is of course the focus of the present controversy: the goals of strategic stability and crisis stability as such are not in question.

#### The Test of Experience

Do the principles of arms control need to be qualified in the light of experience? Has it proved possible in practice to decouple the shared interest in agreements to reduce the risk of nuclear war from the overall political competition of the super-powers? Has arms control been able to free itself from the structural constraints and manipulative incentives of the earlier disarmament negotiations?

It appears evident that the arms control negotiations of the later 1970s and the 1980s have been plagued by all the old problems stemming from the political rivalries of the negotiating powers. Has this been because the goals shifted imperceptibly from those of arms control to those of disarmament (arms

reductions as good in themselves), or because of a massive intrusion of manipulative politics, or because the original doctrine of arms control proved inadequate?

In the first place, the distinction between arms control and disarmament may be clear conceptually but is difficult to draw in practice. The typical arms control measure is a specific agreement clearly addressed to a specific source of instability in the strategic balance, but the concept of arms control does not exclude more complex agreements, provided a link to the goals of arms control can be established. But which of the goals? Any agreement can be plausibly defended as reducing the cost of preparedness below what it would otherwise have been (though even this can be questioned if military planners seek to carry out whatever is not precluded by the agreement). This is therefore a weak criterion, but it may be difficult to establish a plausible link between a complex "package" such as the SALT II Treaty and the primary goal of reducing the risk of nuclear war. Any such link is likely to be indirect, since the tendency of such agreements is to dampen arms competition and to enhance mutual confidence: in the case of SALT II, the actual outcome can more plausibly be seen as the reverse.

The doctrine of arms control would have been in error if it had posited a complete decoupling of arms control measures from the ongoing political conflict. The achievement of an arms control agreement or the breakdown of negotiations inevitably affect the broader political relationship, normally to a greater extent than the technical consequences of the measure itself would justify. This was surely true of the earliest U.S.-Soviet arms control agreement, the partial test ban, which had little or no direct effect on the risk of nuclear war and which did not limit the arms race but marginally increased its cost through the move to underground testing. Yet, together with



concurrent developments such as the establishment of the hot line, the partial test ban substantially affected the political climate, ushering in a new phase of the super-power relationship which came to be termed the detente, increasing mutual confidence and lending credence to the idea that practical arms control agreements could be reached despite the political rivalry. It can be plausibly argued that the partial test ban contributed indirectly to the basic arms control goal of reducing the risk of nuclear war, in so far as it contributed to the recognition of shared interests, the readiness to negotiate on disputed issues and a reduced likelihood that tensions would develop into confrontations. It is likely that many of the arms control agreements contributed more to detente than to goals such as crisis stability, but so long as detente was not undermined for other reasons, the process as a whole contributed to the primary goal, by reducing the incidence of crises.

A further consequence of arms control agreements was understated in the original doctrine, i.e. their effect on the arms race, both direct and indirect. Some of the early agreements such as the Outer Space Treaty or the Seabed Treaty had little direct effect, since neither of the parties intended to deploy weapons in the prohibited zone at the time, though such agreements can come to have greater relevance if conditions change. In principle, the goal of arms control is not to end the arms race as such but to channel it in directions which tend to stabilize the strategic balance, and away from those which would destabilize it. But the indirect effect of heightened arms competition merits more attention than it has received by the arms control school. To the extent that it is the perceived need to respond to the Soviet build-up of the past fifteen years which has rendered the Reagan Administration blind to the concept of arms control, an intensified arms competition as envisaged in present projections may perpetuate a climate of opinion unfavourable to arms control in both Washington and Moscow.

The agreements which most clearly reflect the thinking of the arms control school are the Nuclear Non-Proliferation Treaty (NPT) and the ABM Treaty. The negotiation of the NPT in the mid-1960s, despite the war in Vietnam and despite friction between the US and some of its allies, exemplified the partial decoupling of an important shared interest of the super-powers from ongoing conflicts and alignments (alternatively, the upgrading of that interest in relation to other interests). The ABM Treaty was seen as enhancing strategic stability. It closed off one route whereby future arms competition could undermine stability by reducing the certainty that either side could inflict "assured destruction" after suffering a "first strike" against its strategic forces.

On the other hand, the highly complex negotiations which led to the agreements on strategic offensive forces illustrated many of the problems of traditional disarmament negotiations without in the end achieving disarmament or contributing very credibly to arms control. They did not prevent the developments which have called in question the stability of the present strategic balance, the introduction of MIRVs (multiple independently targetable re-entry vehicles) and the increasing accuracy of strategic offensive missiles. However, the publicity and the high expectations that came to be associated with the negotiations, perceived as central to the detente, created an arena in which there were strong incentives to appeal to public opinion, for a variety of reasons. To some, given that the target was essentially Western opinion, this represented an asymmetry which substantially weakened the Western bargaining position; to others the principal cost, especially in the 1980s, has been the eclipse of serious negotiations.

The experience of two decades of arms control does not reveal fundamental inadequacies in its original principles but does suggest that they need to be

supplemented. Two lacunae noted above are the neglect of certain indirect effects of arms control agreements, on the one hand, and of heightened arms competition, on the other. If the former political effects extend to reducing the incidence of crises, this serves the primary goal of arms control as surely as measures which reduce the potential sources of instability in crises. If heightened arms competition reduces or even eliminates the awareness of arms control options, this ipso facto increases the risk of nuclear war. Experience does demonstrate that it is difficult for governments, or even one government, to adhere to the principles of arms control as a basis for policymaking. Even in the 1970s they were gradually displaced by short-term political considerations: over-inflated claims for arms control itself and above all for detente, a consequent over-reaction against detente and a heightening of East-West tensions, leading by the 1980s to a competition to impress Western public opinion by the attractive packaging of one-sided arms control proposals. A little-noted casualty of these developments, the original concept of arms control was submerged beneath the waves of rhetoric and ideological antagonism.

#### Towards An Arms Control Agenda for the Later 1980s?

Setting on one side the consequences of the SDI, examined below, a number of adverse trends in the strategic environment appear likely to render the balance less stable, to render crises more hazardous - to reduce crisis stability. These go beyond the widely discussed fear of pre-emption, i.e. the concern that the ICBMs on both sides may have become so vulnerable to a first strike as to create a dangerous incentive for each to seek to pre-empt the other if, under conditions of extreme tension, there are indications which lead one or both to perceive war as probable - indications for example which may be construed as preparations for an attack.<sup>7</sup> They include the reduced decision time which is a consequence of some of the new technologies and weapons systems,

the reduced predictability caused by the proliferation of new technologies, a resulting loss of confidence under conditions of crisis, and perhaps above all uncertainties caused by the continuing vulnerability of command, control, communications and intelligence systems leading to (or presumed to lead to) the delegation of authority to lower levels under specified conditions in crises. Strategic alerts, resorted to in the past as a means of demonstrating resolve as well as enhancing military preparedness, are coming to be seen as more hazardous in view of the way they may be construed by the adversary, yet heightened preparedness may be deemed essential under the very conditions which render it hazardous.<sup>8</sup> Among the developments close to fruition which tend to reduce reaction times and predictability are anti-satellite (ASAT) systems, which may threaten to destroy the principal source of information and confidence, as well as communications, precisely when these would be most needed. These developments, considered as a whole, may well increase the dangers of an "escalation spiral" as much as or more than the risks of pre-emption, but the fundamental point is the new level of uncertainty concerning crises: the pressures are not well understood by strategic analysts, nor the military, nor by political decision-makers.

It is difficult to see the Reagan Administration's response to these developments as anything other than a policy of technological laissez-faire. It has at no stage addressed the problem of heightened crisis instability and the cumulative developments that increase the risk of a disastrous confrontation. It has put forward no proposals directed to checking these tendencies, but has decried proposals by independent analysts which seek to do so.

In the case of the most clearly-defined threat to predictability and confidence, ASAT systems, it appears evident that crisis stability would be enhanced, and thus both sides would be better off, if they could agree not to

deploy ASAT. In this context the contrast between the comprehensive analyses and the specificity of proposals by independent analysts and the sweeping generality of their dismissal by Administration spokesmen and their supporters makes for melancholy reading. For example, after canvassing the strategic issues and verification problems, Garwin, Gottfried and their collaborators argue the case for a ban on the testing of anti-satellite systems.<sup>9</sup> It has not been convincingly argued that this would be unverifiable, or that the problems of verifying such a ban could not be overcome by research. Others have suggested that, given the existence of a Soviet system against satellites in low orbit, a ban might have to be restricted to systems against the more important, high orbit satellites. But the Administration and its supporters appear to be satisfied to argue, as is correct but irrelevant, that it would not be possible to prevent the use of any and every device which could be brought to bear against individual satellites, or to verify that no such devices were in existence, or even to claim flatly as Colin Gray does that the technical infeasibility of ASAT arms control "has won reluctant support even among generically enthusiastic arms controllers",<sup>10</sup> thus dismissing the views of a former Director and a former Deputy Director of the CIA, a former chief scientist for the US Air Force and a senior member of its space division, a former Deputy Under Secretary for Defense and prominent space researchers who argue for the feasibility of the verification of ASAT systems.<sup>11</sup>

These arguments are advanced, not in relation to a proposal under negotiation but as reasons for declining to enter into negotiations. The same is true of the proposed comprehensive test ban: where previous Administrations argued their case for adequate verification in the negotiations, the Reagan Administration advances the claim that a test ban would be unverifiable, at a time when it is becoming increasingly shaky, as a reason for not resuming the negotiations. It also has recourse to the classic anti-arms control argument,

"a test ban cannot of itself end the threat posed by nuclear weapons".<sup>12</sup>

Because it cannot solve all the problems it is not worth having.

The Administration's stance no doubt reflects its preference for keeping all technological options open including, in the case of ASAT systems, all strategic defence options, since there is substantial technological overlap. If the SDI offered sufficient gain in long-term security it might justify an increase in crisis instability resulting from ASAT, but the trade-off should be acknowledged as such, not clouded in generalities and unsubstantiated claims of infeasibility. And if this particular increase in the nuclear risks were to be accepted, greater attention should be paid to ways of working against other adverse tendencies. But this would require an orientation towards the problems of crisis stability of which there is no indication on the part of the Administration.

#### The Strategic Defense Initiative

The Strategic Defense Initiative stems from a speech by President Reagan in March 1983. Apart from Defense Secretary Weinberger, none of the prominent supporters of the Initiative is prepared to defend the claims then advanced by the President that strategic defences might render nuclear weapons "impotent and obsolete" and "free the world from the threat of nuclear war", and reaffirmed by Weinberger as recently as 16 September 1985, when he denied that the SDI was a bargaining chip that might be exchanged for a "deep cut" of 5,000 Soviet warheads.

The Strategic Defence Initiative offers too much hope to mankind of something that everyone has said they wanted ever since nuclear arms were developed, and that is to get rid of them.<sup>13</sup>

It is generally conceded that a successful research program may at best show the feasibility of deploying a multi-layered defensive system capable of greatly reducing the number of warheads that would reach their targets, but that a significant proportion of targets would be destroyed.<sup>14</sup> Despite this expert consensus, a group formed to lobby for the SDI, High Frontier, has recently screened a TV commercial which makes even more extreme claims. A small girl is shown in a garden.

She says her father told her: "Right now we can't protect ourselves from nuclear weapons, and that's why the President wants to build a Peace Shield." Chunky red missiles begin to rain down, but they harmlessly disintegrate (pop! pop!) when they hit a bluish, Crayola arc in the sky. Presto, the arc becomes a shimmering rainbow, and the frowning sun begins to smile.<sup>15</sup>

It must be doubted that such unrealism can remain persuasive in the long run.

Indeed one school of thought, proceeding from the assumption that a multi-stage defensive system may not prove feasible or cost-effective, is attracted by a quite different, and more traditional conception, viz. that a single-layer system of terminal ABMs might ensure the survivability of sufficient ICBMs to preserve an "assured destruction" second-strike capability. This does not challenge the basic logic of nuclear deterrence as it has been understood since the advent of nuclear parity: a first strike is irrational so long as the adversary would retain the capacity to inflict unacceptable destruction on the attacker's society. The kind of "hard-point" defence which is now envisaged might secure a sizeable fraction of the ICBM force from destruction in a first strike, sufficient that a significant number could be expected to penetrate the attacker's defences, especially his defence of "soft" targets such as cities which cannot be protected as effectively as missile sites. Thus an "assured destruction" capability would remain the basis of deterrence.

Revulsion against the ethics of relying on deterrence through assured destruction provides much of the impetus for endorsing strategic defences as a more radical alternative. As Harry Gelber expresses it:

Deterrence solely or mainly by the threat of the mass slaughter of civilians is neither morally acceptable nor politically sustainable, except as a temporary measure pending the appearance of more desirable alternatives. Since the avoidance of war cannot be guaranteed, nations cannot - and should not - accept Governmental policies which rely only on massive and indiscriminate destruction. In Mr Reagan's words, "What if free people could live secure in the knowledge that their security did not rest upon the threat of instant US retaliation to deter a Soviet attack, that we could intercept and destroy strategic ballistic missiles before they reached our soil or that of our allies?" ... Since technological developments now suggest that such methods may be at least partially feasible, it is necessary to examine them closely.<sup>16</sup>

Since however it is generally conceded that perfect defences cannot be developed, the question is whether in a situation of imperfect defences capable of reducing the weight of a nuclear strike but not destroying the whole attacking force, deterrence will not in the last analysis rest on the same ethically repugnant logic as at present. If deterrence remains secure in a world of imperfect defences, it will not be because they will render an attack less effective - after all, invulnerable ICBMs were once thought likely to achieve this - but because the potential attacker will fear the destruction of its own society, despite its imperfect defences. Partially effective defences will bring about only a marginal change in the ethical basis of deterrence, not a radical change. "Damage limitation", the reduction in the destruction of one's own society in a nuclear exchange, would be achieved (at least in part) by the capacity to reduce the weight of an attack defensively rather than by the tacit threat of a first strike, but the primary goal of nuclear strategy, the deterrence of attack, would still depend on the threat of intolerable destruction in retaliation. So long as sizeable strategic offensive forces



remain in existence, as there is every reason to expect for the foreseeable future, it is unlikely that there can be any escape from the logic of mutual assured destruction as the "bottom line" of deterrence.

The ethical claims of the advocates of the SDI would be somewhat more persuasive if the policy were part of an overall change to a mixed offensive-defensive posture such as that of the Soviet Union, which has consistently maintained significant air defences and civil defence, presumably as a hedge against the possible failure of deterrence, whereas the US abandoned air defences and never undertook a serious civil defence program. The ethical principle would be a different one, viz. the obligation of a government to protect the lives of citizens as far as it has the ability to do so, given that it cannot ensure that deterrence will succeed in preventing war. This overall defensive posture, however, is seldom advocated, and if indeed the strategic defences likely to be feasible leave the essential logic and ethics of nuclear deterrence unchanged, the ethical case for the SDI collapses: it remains to examine its strategic and political implications.

#### The Thesis of the Defensive Transition

The principal attempt at a politico-strategic rationale for the SDI, albeit formulated considerably later than the policy itself, is the thesis of the defensive transition, developed by Colin Gray, incorporated into the Administration's arms control policy by Paul Nitze and recently endorsed by Fred Ikle and by Harry Gelber.<sup>17</sup> The thesis is that, whereas the present strategic balance is potentially unstable, offering dangerous incentives to pre-emptive attack and rendering substantial arms reductions unlikely, a gradual transformation of the balance from the present monopoly of offensive systems to one dominated by defensive systems would not only make for greater safety and

stability but would open the way to genuine reductions in the strategic offensive forces. Effective defensive systems would render any use of the offensive forces futile, thus reducing the incentive to retain them on the present scale. As they came to be perceived as redundant, it would become possible for both sides to reduce them to much lower levels. Moreover, a balance at lower levels reinforced by strategic defences would be stable, in that it could not be overturned by cheating or "breakout" by either party, thus one of the traditional objections to minimum deterrence would be overcome. Deterrence would rest mainly on defensive capabilities, strengthened by residual uncertainty.

Arms control would play an important part in ensuring a safe transition as well as in consolidating the eventual defensive balance.<sup>18</sup> Co-ordination of the change towards emphasis on the defensive would be necessary in order to avert the danger of a heightened offensive-defensive arms competition, and this would be in the interest of both sides. It is not altogether clear, however, whether this would be a shared interest based on the greater cost-effectiveness of defensive systems, or on a common strategic doctrine, or rather a reflection of the coercive power of superior American economic resources, the capacity to outspend the Soviet Union if it should seek to counter the new American approach by enhancing its offensive capabilities.

In the light of the adverse trends in the strategic balance in the 1980s, the evident obstacles to agreement on strategic force limitations, and potential sources of crisis instability, the thesis of the defensive transition merits close scrutiny. Much of the discussion has emphasized the technical assumptions of successful strategic defence. Administration supporters argue quite correctly that the feasibility and cost of the various systems will not become clear until a great deal of the proposed research has been undertaken - if

indeed even then. On the other hand, it is equally valid to argue that research and development programs on the scale being undertaken generate a great deal of momentum and political support, tending to pre-empt later decisions. It is therefore desirable that the political and strategic assumptions of the thesis of the defensive transition be examined at the outset. Is the appealing prospect outlined by Gray and others plausible, or does it rest on assumptions which have little probability of being fulfilled?

i) The first and rather breath-taking assumption is that it is possible for strategic analysts in the mid-1980s to foresee the central strategic developments of the next two or three decades, and thus to predict a transition from the offensive dominance of the first four nuclear decades to a predominantly defensive balance within the first quarter of the twenty-first century. No such claim was advanced by earlier strategic analysts: there may have been a widely shared expectation in the 1960s and earlier 1970s that the strategic balance would remain stable, but this was seldom articulated so confidently as the present prediction, and if it had been it would have been discredited by the 1980s. Ikle's image of "navigating to a distant haven"<sup>19</sup> shows some awareness of this assumption even while disguising it in reassuringly familiar imagery.

ii) The second assumption is that, contrary to previous experience, this time the Soviet decision-makers will see the compelling logic of this particular American strategic doctrine and will respond accordingly: not only in perceiving the desirability of strategic defences, which is sufficiently in line with the Soviet tradition as to be quite plausible, but also in being persuaded of the redundancy of their ICBMs, the predominant element in their strategic offensive forces. Many commentators consider the opposite Soviet response more likely, viz. countermeasures to preserve the effectiveness of the offensive

forces. And indeed the same could be true of the Americans themselves: would they really see their own offensive forces as redundant, or would they seek to circumvent the Soviet defences or to hedge against uncertainty over the reliability of the defensive system?<sup>20</sup> There is already some evidence that the latter is more likely.<sup>21</sup> While it is conceivable that technology will move so decisively in favour of the defensive as to render such countermeasures futile, such extreme changes are abnormal. Moreover, many of the new technologies and systems may be double-edged in their implications for the offensive and defensive. For example, it is frequently argued (most vehemently by supporters of the SDI) that it is difficult to distinguish developments in anti-satellite systems from some of those in strategic defence systems. The space-based components at present envisaged as a major part of the American strategic defence system are likely to be vulnerable to anti-satellite attack: a plausible Soviet response to their deployment would be to deploy anti-satellite systems against them, thus by down-grading the potential of the opposing defences to retain more effective offensive forces. These anti-satellite systems might in turn become new targets for U.S. offensive forces. It is evident that the defensive transition thesis assumes one particular prediction, among the range of possible directions an offensive-defensive arms competition might take, indeed a highly optimistic projection, which contrary to the normal tendency of strategic thinking might be termed a "best-case" analysis.

iii) The thesis of the defensive transition is premised on the view that the initial stage will see a heightening of the arms competition: continued modernization of the American strategic offensive forces is seen as necessary in order to counter the innovations in Soviet systems in recent years. Thus the third assumption is that this initial offensive/defensive competition can be contained politically, that it will not have consequences which are dangerous in themselves, e.g. a return to a crisis-prone state of super-power relations or at

least so tense a relationship as to rule out the benign defensive transition which was intended, and the arms control agreements which are expected to play a prominent part in the transition. Again, no specific prediction is in order: it is possible that intensified arms competition may not lead to a climate of political tension between the super-powers, and such tensions may be contained short of the level of crisis or confrontation. But should policy be based on the neglect of such probable risks? No reason has been offered for taking, once again, the most optimistic of a range of possible assumptions. If it is likely, as is argued further below, that super-power crises in the kind of strategic environment that would be created by the new offensive-defensive technologies will be more dangerous than in the past, then the goal of crisis avoidance becomes even more important and policies which risk increasing the incidence of crises are even more dangerous than before.

iv) The fourth assumption relates to support for the projected policy in the United States and on the part of its allies, especially in NATO. The deployment of strategic defences and the ensuing arms competition, if this is indeed the outcome of the SDI, will be perceived as due to an American initiative: on present indications, the Soviet Union will be perceived as reluctantly responding to the challenge. The heightening of tension, should it come about, will be attributed to American policy, in contrast to the Western perception of the sources of the original Cold War. The maintenance of political support for a long-term policy perceived to have these kinds of consequences is problematic. The divisiveness of nuclear issues as a focus of political and electoral debate has been demonstrated in Europe in recent years; the capacity of a questionable "national security" policy to destroy the American foreign policy consensus was shown in the case of the Vietnam war. Once again, the thesis of the defensive transition rests on the most optimistic of a range of possible assumptions, or more harshly, the neglect of a number of relevant considerations.<sup>22</sup>

If the defensive transition appears hazardous, what of Ikle's "distant haven" (Gray's "distant woods")? Would the haven provide the security which is lacking in the present? The defensive balance is presented as one in which the defensive systems offer stability of a kind which the present vulnerable ICBMs do not. Yet the invulnerability of the elaborate space-based defensive systems which are now envisaged is much less plausible than was the invulnerability of ICBMs in hardened silos two decades ago.

The addition of "boost-phase" and other space-based defensive systems to the destabilizing elements in the emerging strategic balance, discussed above, will further compound the uncertainties and instabilities already discernible. The chances of a safe defensive transition as against other projections do not appear to be very high, and even if it were accomplished, technological change would not come to an end, and it has been argued plausibly that a balance depending heavily on imperfect defensive systems may be less "robust", less stable in the face of unexpected developments, than an offensive balance.<sup>23</sup> In a balance dominated by space-based and anti-satellite systems, dangerous misperception and over-reaction cannot be excluded and may well be more likely than at present.

It is often claimed that strategic defences would enhance crisis stability by reducing the incentives to pre-emptive attack. If their main effect were to be a return to the situation (now fast receding) in which it is clear that a sizeable fraction of each of the opposing ICBM forces would survive any attack, this would indeed render pre-emption once again manifestly irrational, a non-option to any sane decision-maker. However, this depends on certain conditions whose fulfilment cannot be taken for granted. It assumes that the defences on both sides have a certain level of effectiveness against attack and are not themselves vulnerable to a different kind of pre-emptive strike. If their

effectiveness is in question, or is deemed good only against a "ragged" second strike, or if they themselves are vulnerable, or if the adversaries have asymmetrical offensive/defensive capabilities, there could be increased incentives to pre-empt. Alternatively, if the balance were perceived to offer incentives to attack defensive systems or ASAT systems in a crisis, the dangers of uncontrolled escalation might be greater than at present and this in turn might generate new pre-emptive pressures. The promise of a safe haven appears to be sheer assumption, no less illusory than President Reagan's vision of perfect defences. A better image might be that of a dinghy heading into the open sea oblivious of warnings of an approaching hurricane.

Some of these uncertainties are acknowledged in the conditions which Paul Nitze has enunciated as prerequisites for a final decision to deploy the proposed defensive systems. They are not to be deployed unless they are survivable and cost-effective. He concedes that:

If a defensive system were not adequately survivable, an adversary could very well have an incentive in a crisis to strike first at vulnerable elements of the defense. Application of our survivability criterion will ensure that such a vulnerable system would not be deployed ... Our cost-effectiveness criterion will ensure that any deployed defensive system would create a powerful incentive not to respond with additional offensive arms, since those arms would cost more than the additional defensive capability needed to defeat them.<sup>24</sup>

It is uncertain at the present time whether Nitze's two conditions can be fulfilled, and it is possible that uncertainty will remain even after substantial research has been undertaken. The logic of cost-effectiveness is more complex than is suggested above: in the context of ongoing research and development programs, the response to additional defensive capability may not be additional offensive capability but the introduction of new systems to reduce the effectiveness of the existing defences. In the view of many experts the

survivability criterion is unlikely to be fulfilled, and even advocates of the SDI acknowledge that it represents a major problem.<sup>25</sup>

Overall, the case for the SDI rests on a large number of unsubstantiated claims and optimistic assumptions, and it is unlikely that the conditions for a rational decision to deploy space-based defences can be realized. It is a matter of concern that, a few honourable exceptions aside, its advocates are offering little by way of reasoned argument, but are rather seeking to foster a climate of opinion in which the crucial distinctions between research, development and deployment are blurred and the eventual deployment of strategic defences is regarded as inevitable. In the long run the most effective counter to this may be the pressure of competing defence priorities, recently emphasized by James Schlesinger.<sup>26</sup> But this may be at the cost of urgently needed measures of arms control. The thesis that while arms control is undesirable and infeasible today it will become desirable and feasible the day after tomorrow, in the brave new world of the defensive transition, is as implausible as it sounds. Rather, well-devised measures of arms control are necessary to check the imminent and present dangers of the nuclear arms race, and the longer the recognition of this is delayed, the greater the dangers.



Footnotes

1. Richard F. Staar (ed.), Arms Control: Myth versus Reality, Stanford, Hoover Institution Press, 1984; John F. Lehman and Seymour Weiss, Beyond the SALT II Failure, Praeger, 1981.
2. The balance has been partially corrected by the publication by the American Academy of Arts and Sciences of a double special issue of Daedalus on Weapons in Space (vol. 114, nos. 2 & 3, Spring & Summer 1985), especially vol. II of the special issue, "Implications for Security". This provides an invaluable discussion of many aspects of the SDI and its implications. The present paper, drafted before it became available, offers an additional perspective by placing the SDI in the context of the development of arms control.
3. The "walk in the woods" agreement negotiated privately between the chief American and Soviet negotiators, Paul Nitze and Yuli Kvitsinsky, in July 1983 served if anything to confirm this impression of the negotiations, since it was disavowed by both governments. The Reagan-Gorbachev summit meeting in November 1985 left the deadlock over the SDI unchanged.
4. William H. Kincaid, "The End of Superpower Nuclear Arms Control, Phase I" and Randall Forsberg, "The Freeze and Beyond", papers presented to the Conference on the Future of Arms Control, Strategic and Defence Studies Centre (SDSC), ANU, 1985.
5. See e.g. the discussions on disarmament in Hans J. Morgenthau, Politics Among Nations, Knopf, successive editions and Inis L. Claude, Swords Into Plowshares, Random House, successive editions.
6. Hedley Bull, The Control of the Arms Race, Weidenfeld and Nicolson, 1961; D.G. Brennan (ed.), Arms Control, Disarmament and National Security, Braziller, 1961; T.C. Schelling and M.H. Halperin, Strategy and Arms Control, Twentieth Century Fund, 1961. For a recent discussion see Hedley Bull, "The Classical Approach to Arms Control Twenty Years After", in Uwe Nerlich (ed.), Soviet Power and Western Negotiating Policies, Ballinger, 1983, vol. II, pp. 21-30.
7. It would seem that this danger may have been overstated in some recent discussions: although the ICBMs may be vulnerable, submarine-launched ballistic missiles and possibly aircraft provide so massive a second-strike capability as to render a pre-emptive strike irrational. But the counter-argument that rationality may not prevail in acute tension if either side perceives the other as about to attack cannot be entirely dismissed, especially since a number of potentially influential American commentators maintain that ICBM vulnerability has indeed increased the danger of pre-emption.
8. For an overview of these developments, see Charles F. Hermann, "The Ultimate Crisis in the Nuclear Era", paper presented at XIII International Political Science Congress, Paris, 1985.

9. R.L. Garwin, K. Gottfried and D.L. Hafner, "Antisatellite Weapons", Scientific American, 250, June 1984, pp. 27-37; K. Gottfried and R.N. Lebow, "Anti-Satellite Weapons: Weighing the Risks", Daedalus, 114, Spring 1985, pp. 147-170.
10. Colin S. Gray, "The Reagan Administration and Arms Control", paper presented to Conference on the Future of Arms Control, SDSC, ANU, 1985.
11. "Aerospace Experts Challenge ASAT Decision", Science, 224, 18 May 1984, pp. 693-696; Walter B. Slocombe, "Technology and the Future of Arms Control" and Barry M. Blechman, "New Technology, Stability and the Arms-Control Deadlock", International Institute for Strategic Studies, Adelphi Papers, 198, Summer 1985.
12. Eugene Rostow, October 1981, cited in Desmond Ball, "The Comprehensive Test Ban Treaty: A Role for Australia", paper presented to Conference on the Future of Arms Control, SDSC, ANU, 1985.
13. For President Reagan's speech, Survival, 25, May-June 1983, pp. 129-130; for Weinberger comment, Canberra Times, 17 September 1985, p. 4.
14. For example, James Schlesinger states flatly: "There is no leak-proof defense. Any defense is going to suffer some erosion at best. An effective opponent will develop defense suppression techniques and will punch a hole through any space-based defense that is deployed". James R. Schlesinger, "Rhetoric and Realities in the Star Wars Debate", International Security, 10, Summer 1985, p. 5. Colin Gray, a prominent supporter of the SDI, argues that the Soviet Union has no reason to fear a U.S. first strike because "Soviet defense planners have to be confident that, for several decades at least, many hundreds of their offensive weapons, ragged remainder or not, assuredly would penetrate to damage the United States". Gray, loc.cit., p. 30.
15. "The Great Star Wars P.R. War", Time, 9 December 1985, p. 25.
16. Harry Gelber, Mr. Reagan's 'Star Wars' : Towards A New Strategic Era? Working Paper 87, SDSC, ANU, 1984, p. 3.
17. Colin S. Gray, "A Case for Strategic Defence", Survival, 27, March-April 1985, pp. 50-55; Keith B. Payne and Colin S. Gray, "Nuclear Policy and the Defensive Transition", Foreign Affairs, 62, Spring 1984, pp. 820-842; Paul H. Nitze, "The Alastair Buchan Memorial Lecture", Survival, 27, May-June 1985, pp. 98-107; Fred C. Ikle, "Nuclear Strategy: Can There Be a Happy Ending?" Foreign Affairs, 63, Spring 1985, pp. 810-826; Harry G. Gelber, "Will the Soviet Union Respond to the American SDI Programme with a Fresh, Destabilising Build-up of Offensive Weapons?" World Review, 24, August 1985, pp. 4-22.
18. Paul Nitze has referred to the "important role" and even the "critical role" which arms control would play in the "co-operative endeavour with the Soviets" to achieve a transition to a defence-dominated balance. See Nitze, loc.cit., p. 106 and his speech to the Philadelphia World Affairs Council, 20 February 1985, cited in J. Boutwell and F.A. Long, "The SDI and U.S. Security", Daedalus, 114, Summer 1985, p. 321.
19. Ikle, loc.cit., p. 811.



