

PRIME MINISTERArms Control

These papers are for your Chequers meeting next Saturday:
but you may have time for a first read this weekend.

By and large I think the proposed approach is a sensible one. You would not go over the ground on SDI again but would devote most of the discussion with President Reagan to the western position at Geneva and put to him some proposals for this (those in paper A: you will want to discuss them next week). You would also raise with him, more briefly, Chemical Weapons (B) and Non-Proliferation (C).

There is the separate question whether to send the Americans in advance papers on these three subjects. There is much to be said for this, to prepare your meeting with President Reagan. But there is no doubt that the paper on the SDI will be a jolt to those in the US Administration who are attached to the SDI, and might lead them to clam up on us, leaving us less able to influence them. This would point to continuing to argue our doubts about the SDI but not put them down in black and white. It is a difficult balance which you will want to discuss next week. (I incline against giving them the paper.)

CDP

C. D. POWELL25 January, 1985



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25 January 1985

Dear Charles,

The Prime Minister's Visit to Washington, 19/20 February:
Arms Control

As we agreed, I have been co-ordinating the preparations by Foreign and Commonwealth Office and Ministry of Defence officials of papers on arms control matters in connection with the Prime Minister's "seminar" on arms control in Washington on 20 February. I enclose the set of papers which is the outcome of our collective efforts; they have been approved, as drafts, by the Foreign and Commonwealth Secretary and are still being considered by the Defence Secretary. The Prime Minister may wish to see them in advance of her briefing meeting at Chequers on 2 February.

2. The Prime Minister may also find it helpful, before her briefing meeting, to have an indication of the thinking which guided our preparation of these papers; and of our recommendations as to how the arms control dimension of her Washington visit might best be handled. These are as follows:

1. "Seminar" agenda and handling

3. Our prime concern has been to make the most effective use of the very limited time - one hour or, in the best case, 90 minutes - which is now being set aside for the "seminar". This has led us to suggest a more firmly structured agenda and a more specific allocation of time per item than would normally be appropriate for a meeting of this kind. We have also had in mind the American expectation (paragraph 6 of Washington telegram No. 117) that the Prime Minister and President Reagan will wish, at their forthcoming meeting, to break new ground rather than continuing the discussion, mainly on BMD/SDI, which took place at Camp David on 22 December. Against this background, we consider that the most valuable function of the seminar will be to use it as an opportunity for putting forward a British view on what Western objectives in the forthcoming US/Soviet arms control negotiations might be, and on how these might be achieved: and to obtain an authoritative account of how the Americans, for their part, see the way forward. The

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last Camp David meeting was clearly significant for the subsequent discussions between Mr Shultz and Mr Gromyko at Geneva; its sequel on 20 February could, equally, have a significant bearing on the next stage of the US/Soviet dialogue. We therefore suggest that two-thirds of the time available, i.e. at least 40 minutes, should be devoted to an exchange of views on the forthcoming negotiations on space weapons, strategic nuclear weapons (START) and intermediate range weapons (INF).

4. We consider that it will be important to use this discussion with the President to register, at that level, United Kingdom views on two key areas of arms control: chemical weapons and non-proliferation. We suggest that ten minutes might be devoted to each of these.

5. The Prime Minister has indicated (your letter of 3 January to Len Appleyard) that she would like papers on the main arms control issues to be passed to the Americans in advance of her meeting with the President, and three of the enclosed papers have been prepared for this purpose. We nevertheless consider it very desirable that, rather than simply discussing material which has been put on the table in advance, the Prime Minister should have something new and important to say when she meets the President, in order to make the maximum impact (as she did at Camp David) with ideas which have not been pre-digested by his advisers. For this reason, the line which we suggest the Prime Minister might take on the most important agenda item, namely the forthcoming US/Soviet negotiations, has been cast in the form of a speaking note of which the Prime Minister would leave a copy with the President but which would not (except in the most general terms - see paragraph 7(iv) below) be unveiled in advance. We have also prepared short speaking notes on the other two suggested agenda items - chemical weapons and non-proliferation: these are designed simply to register with the President the key points in the papers on these issues which will already have been handed over to the Americans and on which, therefore, the President will be briefed.

6. To sum up on the seminar itself, we suggest that the Prime Minister might open by speaking on the lines of the note on US/Soviet arms control negotiations (enclosure A) and then ask the President for the United States view (about 40 minutes); go on to speak on the lines of the note on chemical weapons (enclosure B) with the main objective of bringing home to the President the real political difficulty which Article X of the US Draft Treaty creates for us and other Allies (about 10 minutes); and conclude, if time permits, with a brief word on non-proliferation, on the lines of the enclosed note (enclosure C), in order to impress upon the President the problems which could arise from a failure of the Review Conference later this year (about 10 minutes).



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II. Preparing the Ground

7. On exchanges with the Americans in the run-up to the seminar, we offer the following recommendations:

(i) BMD/SDI. For the reasons set out in paragraph 3 above, it is not suggested that the Prime Minister should, at the seminar, pursue the earlier discussion at Camp David on the concept of the SDI. However, we believe that it would be valuable, as a sequel to that discussion and in order to put a detailed explanation of our views on the record, to hand over to the Americans a copy of the composite paper on SDI/ASATs which was prepared for the earlier meeting (and which has now been updated where necessary); and that, in order to make it clear that we have given careful consideration to the arguments which have been put forward by the Americans in the interim (both at the Camp David meeting itself and during Mr McFarlane's visit on 9 January), it should be accompanied by a short covering note responding to those arguments but, equally, restating our views that the SDI research programme must go ahead. I enclose a draft of this covering note and of the updated composite paper (enclosure D).

(ii) Chemical Weapons. We suggest that the Americans should also be given, in advance, copies of the paper on Chemical Weapons which I enclose (enclosure E). The main purpose of the paper is to spell out in greater detail than hitherto the United Kingdom proposal on Challenge Inspection and to advocate it as an alternative to the United States approach in Article X (on verification) of their draft Treaty.

(iii) Non-Proliferation. We recommend that we should also give to the Americans, in advance of the seminar, the enclosed paper (enclosure F) on Non-Proliferation and Nuclear Testing, the purpose of which would be to register our view that a limited and realistic package of minor measures on nuclear testing would significantly strengthen the Western position, in the context of Article VI of the Non-Proliferation Treaty, at the Review Conference which is to take place in September this year.

(iv) Seminar Agenda. We suggest that when these papers are handed over in Washington, we should at the same time put to the Americans our ideas on the handling of the seminar and, in particular, our proposal for a limited three-point agenda. It would be made clear that the Prime Minister will not wish to re-open the discussion of BMD/SDI as such; but that she will wish to build on the four points agreed with President Reagan at Camp David on 22 December by putting forward some British ideas on how the relationship between offensive and defensive weapons systems might best be managed in the forthcoming US/Soviet



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arms control negotiations, in the best interests of the West; and that she will, of course, also hope to hear from the President a full account of how he and his Administration now see the way ahead.

8. It is not suggested that on this occasion the Prime Minister should raise the subjects of UK Trident, the CDE or MBFR; but, as for the Camp David meeting, defensive briefing will be provided for use if necessary.

9. All these suggestions and recommendations, together with the enclosed texts, will of course be modified and amended in the light of the discussion at the Prime Minister's briefing meeting on 2 February before any further action is taken.

10. I am sending copies of this letter and extra copies of its enclosures to John Weston (FCO) and David Nicholls (MoD) and I should be grateful if they would arrange for copies of the papers to be made available to their Ministers and officials who will be attending the briefing at Chequers on 2 February. I am myself sending copies of the letter and enclosures to Sir Percy Cradock (Cabinet Office) and to Sir Michael Quinlan (Department of Employment).

Yours ever,

B G Cartledge

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[DRAFT]

SPEAKING NOTE

POSSIBLE OBJECTIVES IN RENEWED US/SOVIET
ARMS CONTROL NEGOTIATIONS

1. UK paper on BMD/SDI/ASATs emphasised need for Alliance cohesion in support of US negotiating position, and for close and continued consultation. Much appreciated McFarlane briefing. Noted his encouragement of UK readiness to produce substantive ideas on possible US negotiating positions.

2. Not too early to begin consideration of a strategy for negotiation which would (a) serve Western interests; (b) unite the Alliance; and (c) deny Russians the potential for wedge-driving or gaining advantage in negotiations. As a UK contribution to construction of such a game-plan, should like to commend to you following ideas.

3. I. Broad objective of achieving, by 1987, agreement in principle on following elements:
 - (a) a framework START agreement (combining present US and Soviet approaches, to the maximum Western advantage);

 - (b) a time-limited ban on further testing and deployment of ASATs which respects principle of balance;

 - (c) formal high-level re-affirmation of commitment by both sides to spirit and letter of ABM Treaty;

 - (d) joint political understanding that for any such START agreement to be successfully implemented, both sides would need to be explicitly agreed about what would and would not be permissible in terms of strategic defence over same period;

 - (e) agreement formally to review position on both offensive and defensive strategic forces at date on which START agreement due to expire (say 1995).

II. If such an outline package could be agreed, detailed negotiations would need to focus on the following:

(a) agreement on fine print affecting nuclear weapons, allowing Soviet launcher aggregates approach to START to be matched with US warhead aggregates approach; on associated problems of heavy bombers; on reductions in ballistic missile throw-weight disparity; and on ways to deal with sea-launched Cruise missiles (SLCMs);

(b) in-depth discussion about SDI, in order to explain rationale for President Reagan's vision and to dispel mutual misperceptions about current level and status of each side's BMD-related research activities; and

(c) definition of agreed framework of predictability on strategic defences and measures of self-restraint which would have to accompany actual implementation of above-mentioned START agreement. This should probably include:- no full-scale engineering development; no field testing of SDI systems or their components; and no deployment during life-time of START reductions agreement.

4. If accomplished, these measures would be a highly productive and constructive contribution to enhancement of deterrence and increased international stability during period before it becomes clearer whether President Reagan's vision can be given practical shape. Such an agreement would not foreclose any options necessary in order to pursue SDI to fulfilment. Most importantly, it would deprive Russians of otherwise potentially damaging argument that offensive force limitations, however intrinsically attractive, could not be accepted while position on strategic defences remained totally undefined.

5. Would also provide number of practical tests in interim designed to demonstrate whether US/Soviet level of confidence could be raised to point where, in words of White House statement of 3 January, "we would envision parallel US and Soviet deployments". In addition, would encourage construction of "arms control environment" which that statement postulated as most desirable circumstance in which any deployments should take place. In all this necessary to bear in mind the assertion in the same statement that "a unilateral.... deployment of such advanced defences would destroy the foundation on which deterrence has rested for 20 years".

6. Not seeking instant US reaction. Prefer to leave these ideas with you for considered comment. Should now value an account of US thinking about future negotiations, especially on linkage between three issues and your overall strategy for reaching agreement. Welcome US response to UK ideas at later stage, and continuation of this valuable dialogue.

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SPEAKING NOTECHEMICAL WEAPONS (CW)

1. In light of serious Soviet threat, UK/US agree negotiated and adequately verifiable ban best answer. Threat of US binary production offers important leverage. Despite political sensitivities, recognise case for modernisation in order to improve negotiating hand. But negotiating position must be sound to enable UK and others to express support for politically controversial move.
2. If negotiations failed, strong case for modernisation. But political sensitivity of issue would not disappear. Again, easier to offer public UK support if we can demonstrate that West had been negotiating seriously and constructively, and that blame for failure must be laid at Soviet door.
3. US draft Treaty generally sound. But Article X proposal, while bold and imaginative, also unrealistic; easily exploited by the Russians; and already produced potential division in Alliance. Most important: it does not offer an effective deterrent to Soviet cheating, even if it could be negotiated.
4. UK concept (explained in paper) builds on US approach. Provides better basis for effective deterrence; or if negotiations fail, better ammunition with which to blame Russians. Urge re-evaluation of US position; UK ready to discuss details further.

is there one?

[DRAFT]

SPEAKING NOTE

NON-PROLIFERATION AND NUCLEAR TESTING

1. Non-Proliferation Treaty (NPT) valuable instrument to contain spread of nuclear weapons to those who do not have them already; especially in Middle East. Also provides mechanism for continuing nuclear trade on sound basis. Review Conference of Treaty in September important milestone for Western non-proliferation aims.
2. Western strategy, to ensure Treaty survives Review Conference intact and in good health, already under discussion by Allies. UK Technical Co-operation Fund proposal important element in strategy.
3. Inevitably focus by non-nuclear weapon states at Review Conference on Article VI (commitment to pursue nuclear disarmament). Do not accept majority view that inherent link between Article VI implementation and progress towards test ban. But recognise strength of others' feelings.
4. In addition to President Reagan's proposal for observer exchanges, suggest package of three elements (described in paragraph 8 of our paper). It is designed to avoid damage to Western security interests while improving US/UK position at Review Conference and thereafter, whether or not Russians accept it.

BALLISTIC MISSILE DEFENCE (BMD) AND ANTI-SATELLITE SYSTEMS (ASATS)

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BALLISTIC MISSILE DEFENCE (BMD) AND ANTI-SATELLITE SYSTEMS (ASATS)I. INTRODUCTION

1. This paper considers Western interests and options in the area of space in the context of the forthcoming US/USSR negotiations in early 1985. These new talks will inevitably be accompanied by an upsurge of Western public interest and copious Soviet propaganda and disinformation. It will therefore be important to ensure that the Western position is carefully and dispassionately thought out. The consideration of the issues which follows is therefore intended to be as objective as possible in setting out the overall factors facing the Alliance. Accordingly, it does not address at any length special UK national interests; the implications for UK Trident of accelerated efforts to develop BMD are not considered in detail.

2. The major issues now apparent to us are the complex questions surrounding Soviet BMD development and the US Strategic Defence Initiative (SDI) and the proposals for limitations on ASATs. BMD and ASATs differ markedly in sizes of programme and timescales for decision, but they are linked in the public mind as aspects of the militarization of space which is becoming more and more of a political issue. Each is a source of evident Soviet apprehension about being technologically overtaken by the US in space; this has led to Soviet calls for the complete de-militarisation of space, which will have to be resisted. Both the BMD and ASAT programmes will be expensive in relation to their goals, and if pursued on any scale will divert resources away from other crucial defence areas. Each will have impacts on the East-West military balance, overall strategic stability, and intra Alliance relations which will need to be fully assessed before beginning a vigorous competition in space systems, even one in which the US could be expected to enjoy an advantage.

3. The feasibility and inherent desirability of negotiating limitations on space systems - both in terms of avoiding an arms race in space, and of the leverage which US willingness to agree restraints here should provide in other negotiating areas will require continuous evaluation as the negotiating circumstances change. This paper argues that there may be real advantages to be derived from negotiated restraints rather than uncontrolled military competition in space, though it will be necessary to correct the existing imbalance in ASAT capabilities. Whatever the final decision, it will be imperative for the continuing unity of the Alliance that, as the negotiations progress, the US public position on the issues raised below can be consistently and cogently explained and justified to European publics as well as to the American people.

II. BMD: THE COMPREHENSIVE CONCEPT

4. The recent development of new technologies has allowed, for the first time, consideration of at least the possibility of comprehensive or "leakproof" BMD, as distinct from the traditional "limited area" ABM defence systems covered by the 1972 ABM Treaty and now deployed round Moscow. Current research which makes up the SDI envisages a multi-layered system of defence against ballistic missiles, comprising boost-, post-boost and terminal phase elements. Methods for achieving these various aims range from current intercept capabilities (nuclear or non-nuclear land-based missiles to be employed in the terminal phase), through conventional devices employed in space in the mid-course and post-boost phases; to advanced technology systems - directed energy weapons (DEWs) eg particle beam or laser - used to attack Soviet missiles in their crucial boost and subsequent phases. The research is largely devoted to countering and eliminating the threat from ballistic missiles; the many forms of non-ballistic nuclear threats such as cruise missiles or strategic bombers would require a different set of advanced defensive systems.

A. ARGUMENTS IN FAVOUR OF BMD

5. The effects on present and future arms control arrangements are considered separately in paras 27 to 32 below.

6. Proponents of BMD argue that it has a wide variety of positive features, of which the following are the most prominent:

a. Ethical Merit. Successful BMD deployment will mean that weapons rather than people will be put under threat, populations can be defended rather than avenged, and the increasingly unpopular strategic posture deriving from Mutual Assured Destruction (MAD) can be replaced by one of Mutual Assured Survival. There is therefore likely to be greater public willingness to underwrite a prolonged and substantial investment in strategic defence rather than devote additional funds to new offensive systems to match the Soviet build-up. The possibility of a practical defence from nuclear attack may also attract support from those whose anxieties about nuclear war would otherwise lead them to favour calls for a freeze on the development and deployment of nuclear weapons;

b. Strengthening of the US Guarantee to Europe. The US will no longer have to fear that strong military support for NATO in Europe will, through escalation, risk the destruction of US cities by ICBMs. This can enhance the credibility of the US nuclear guarantee. In addition, the technical need to achieve interception of as many Soviet missiles as possible in their boost phase means that Europe's security will be enhanced, even if no dedicated terminal defences are built there: US BMD systems will have to attempt to destroy almost any ballistic missile launched by the Soviet Union before they can know where it is aimed;

c. New Crisis Management Options. As a deterrent to provocative behaviour in periods of tension, the US can formally notify unfriendly states that the BMD system is being switched over to automatic, to achieve immediate interception and destruction of any missile launched from their territory;

d. Strengthening of Deterrence. A fully effective BMD system, by nullifying the risk of a disarming first strike by ICBMs, will remove the incentive for a destabilizing nuclear move;

- e. Damage Limitations if Deterrence Failed. If the increased strategic stability provided by BMD proves insufficient to avert a major East-West nuclear war, the number of casualties will be reduced by eliminating a proportion of the warheads launched. This can lessen the possibility of a "nuclear winter" climatic catastrophe which some experts have predicted will follow an all-out nuclear exchange;
- f. Incentives for Deep Cuts in Offensive Nuclear Systems. With fully effective BMD there will be no need to insure against a disarming first strike by accumulating large numbers of vulnerable ICBMs to ensure that a worthwhile proportion survive a first strike. In addition, the decreasing utility of non-penetrating missiles and warheads will logically encourage both sides to agree to reduce them, in theory to zero. Thus the US and USSR can negotiate large reductions in the number of ICBMs and warheads. There will also be scope for greater flexibility over verification since the consequences of non-compliance will be less serious;
- g. Nullifying the Risk of Accidental Missile Launch. In the event of an accidental ie small-scale nuclear launch, any missile can be destroyed in mid-flight, with huge savings in human life. By removing the need for an immediate response there will also be a significant reduction in risk of war. Any proliferation of nuclear ballistic missiles to less technologically competent states will increase the value of this element of BMD;
- h. Avoidance of Nuclear Threats by Small Nuclear Powers. With a BMD a superpower and its allies will not have to fear future nuclear blackmail by extremist states (eg, Libya, Iran, Cuba) which may acquire nuclear warheads and ballistic missiles;
- j. Improve Monitoring and Verification of Soviet Compliance with the 1972 Agreement. BMD research in the US can indicate which Soviet activities to look for as indications of Soviet violations or even intentions to violate the Treaty;

k. Comparative US Advantage in this Area of Military Competition. US superiority in high technology should mean that the Russians will have to divert a greater quantity of particularly scarce resources to compete in the BMD field. This may delay the expansion of other Soviet military programmes and handicap the growth of their economy in general;

l. Achievement of US Lead in 21st Century Weapon Systems and the Domination of Space. BMD-relevant technology is likely to be crucial to the key weapons systems of the future, and the need to deploy it in space may give the West an advantage in this increasingly important area of military operations and economic competition;

m. The Need for a Prudent Hedge Against Soviet ABM/BMD Efforts. Perhaps the most telling argument in favour of the current US research programme. The Soviet Union has deployed around Moscow the world's only functioning ABM system, and is known to be advanced in DEW and other research relevant to BMD. While current assessments indicate the Russians have no immediate intentions to evade or break-out from 1972 ABM Treaty limitations, this situation can change. It will be highly destabilizing if the US falls significantly behind in the development of a comprehensive BMD system.

B. ARGUMENTS AGAINST BMD

7. In opposition to BMD, critics have focussed on the following key points:

a. The Enormous Technical Uncertainty of the Project. The sheer size and complexity of the research under-taking alone is huge. The need to ensure, if leakproof defence is to be achieved, confidence that it functions perfectly first time (inevitably without ever undergoing a full system test) makes its eventual success not only highly dubious in the face of enemy countermeasures and the vast technical problems to be overcome, but the cost of the project would be enormous;

b. The Relative Ease and Cheapness of Countermeasures. The attacker will have a number of options to complicate the defender's task. These include new launchers with accelerated boost-phases; increased use of chaff and decoys; thermal blinding of satellite sensors by nuclear explosions just prior to launch; insulation and rotation of launchers, dispensers and re-entry vehicles to reduce DEW effects; direct ASAT attacks on space-based BMD assets (including by prepositioned orbiting "space mines") and from ground- or space-based DEWs; and attacks on ground support systems, by saboteurs or by depressed-trajectory submarine launched missiles. Grouping ICBM sites in small areas will greatly increase the number of orbiting BMD battlestations required to pose a significant threat. In summary, a range of easily-developed countermeasures can be highly effective, and considerably cheaper for the attacker to develop and deploy than the BMD system to which they form the response;

c. The Threat of Saturation by Increased Number of Offensive Systems. A system designed to be comprehensive against a given threat, can be overwhelmed if the other side increases its inventory of offensive warheads to the necessary extent. Warhead proliferation is a relatively cheap and technically simple option for the offence threatened by BMD deployments; and a large increase of this kind, together with a vigorous counter-measures programme, has already been predicted by US officials as the Soviet response. The result will be unacceptable damage from the minimal "leakage" of even a well functioning BMD system;

d. The Danger of Strategic Destabilisation. Assuming both sides deploy similar BMD systems, the temptation will be heightened to indulge in a pre-emptive first strike at a time of crisis, both against the other side's BMD system itself and its anti-BMD weapons. A first strike against what are likely to be the relatively soft targets associated with BMD systems, including satellites, can nullify the effect of the intended defences, whilst the aggressor remains confident that his own defence system will be able to deal with the surviving forces

from the other side. (These may be the only circumstances under which such confidence can be achieved);

e. The Particular Dangers of Transition from Deterrence to Defence. Even if a comprehensive defence system proves technically feasible, the transition to achieving it to cover the continental US and Western Europe will take decades. If this is a negotiated process, starting in good time, guaranteeing a continuation of the central strategic balance, and based on good faith and confidence between the superpowers, the transition problems will theoretically be eased. More probably, the transitional period will become an era of increasing international insecurity as one side periodically becomes concerned that the other is ahead in the race to achieve perfect BMD. With historically likely worst-case assumptions governing the strategy of each, the temptation to threaten the use of offensive forces whilst they remain effective will increase. The management of all major East/West crises in this period will accordingly become more precarious;

f. Increased Dangers of Automatic Response Leading to War. The crucial ICBM boost phase lasts a maximum of a few minutes and potentially for a minimum of less than a minute. The most technically efficient comprehensive BMD system will therefore almost certainly have to incorporate a hair-trigger response, dependent upon automatic, computer-driven decisions. A limited provision for human override before defences are committed to action might be incorporated, but any resultant delay will be at the cost of reduced certainty of interception. At best, it will probably allow a rapid "yes or no" response on whether to fire from the BMD's military commander, rather than a considered decision by the political leadership. Although the primary consequences of a mistaken decision will be the launch of attacks on enemy rockets rather than enemy cities and populations, there will be a significant risk that, to defeat predicted offensive countermeasures, the integrated defence plan will need to be programmed to conduct pre-emptive attacks at least on other enemy space systems. With a predictable enemy response

to this threat, the sequence of automatically driven reactions can quickly widen into a general conflict;

g. Improbability of Accidental Nuclear Release. Accidental nuclear launches by established nuclear powers have not so far occurred and there is no reason to think that they will be more likely in the future;

h. Low Likelihood of Ballistic Missile Attack by Future Nuclear States. Future nuclear weapon states are unlikely to deploy sophisticated delivery systems such as ballistic missiles, at least in their first generation of weapons. Clandestine prepositioning of nuclear devices, or air delivery of primitive bombs, will probably be significantly greater threats; these will not be lessened by BMD;

j. The Worldwide Nuclear Threat Itself Will Still Remain. Although not themselves capable of a first strike, air-breathing systems (nuclear-capable aircraft and cruise missiles) will remain largely unaffected by BMD systems as currently conceived. The prospect of the total elimination of the long-range ballistic missile threat may well lead to a massive increase in these other systems, with the concomitant need to develop defences against them. Huge air defence (AD) systems will be needed to counter these other threats, an area of defence in which the Russians currently enjoy a clear lead. It is not possible at this stage to predict whether the non-ballistic missile threat can ever be eliminated by leakproof AD or what the strategic implication of this would be. Three probabilities, however, suggest themselves: AD of Europe will be more difficult than that of the US because of the shorter distances and reaction times; the transitional dangers of pre-emptive attack will be even greater if one side appears to be in the process of achieving an imminent total defence against non-ballistic as well as ballistic missile nuclear threats; and, even if both sides are eventually able to deploy defences against all outside nuclear attacks, the risk of conventional war may thereby be increased. In addition the superpowers could resort

to widespread clandestine pre-positioned nuclear devices in each other's territory;

k. Stimulation of a New Arms Race. While the Soviet Union must not enjoy a monopoly in research on defensive or offensive systems, there is a concomitant risk that BMD efforts on both sides will have a synergistic effect, compelling both to pursue an arms spiral which will in the end leave them no more secure and perhaps less so than when they started;

l. Effect on Small National Deterrents. To the extent that the Russians acquire comprehensive BMD, states with small national deterrents based on ballistic missiles systems will be faced with the choice of upgrading them to attempt to maintain their effectiveness, turning to an airbreathing delivery system, or abandoning their capability.

III. BMD: PARTIAL DEFENCE SYSTEMS

8. Given the very large technical uncertainties surrounding the comprehensive BMD concept, many proponents agree that perfect defence may well be unattainable but argue that there is still merit in seeking to develop a partial BMD system. Possible systems offering partial BMD divide into two categories:

a. Less-Than-Perfect Defence, allowing significant predicted leakage of attacking warheads;

b. Point (or Limited Area) Defence ie an extensive interception capability against the terminal phase of ballistic missiles targeted on high value sites - missile silos, other military bases, key command/communications facilities etc - but probably leaving cities unprotected. Multiple point defence systems of this type will exceed the limits of the 1972 ABM Treaty.

A. LESS-THAN-PERFECT DEFENCE

9. Possible Advantages. Proponents of this variant deploy many of the same arguments as for comprehensive BMD, albeit with some variations. They state that such a defence system will enhance deterrence by reducing, though not eliminating, the certainty in the mind of the aggressor that his missiles will reach their targets. It will also inhibit the temptation to indulge in pre-emptive or limited nuclear strikes; it will contribute to saving human lives if nuclear conflict breaks out; it will help to shape a possible arms control agreement; it will provide protection against small accidental missile launches, and the forces of minor nuclear powers; and it will be an essential reaction to current Soviet efforts in this field. If the Russians respond by shifting to a predominately counter-city targeting strategy this only increases a risk which already exists. More important it will simplify US retaliatory options and help to overcome the complex issues of counter-force retaliation. The onus for initiating counter-city targeting will be placed on the Russians. In addition to enhancing deterrence, if the Russians publicly declare this shift it will negate the propaganda value of present Soviet statements about the immorality of NATO threats to Soviet cities, making public acceptance of NATO strategy easier to sustain.

10. Disadvantages. Most of the criticisms detailed in para 6 above applies equally to a less-than-perfect defence. The technical uncertainties and the nuclear threat will remain; the temptation to launch a disarming first strike, though lessened, will remain an important factor; strategic stability, in both the transitional period and thereafter, will be placed more at risk; political control over key decisions will be reduced; and small national deterrents will be affected. The following points are particularly relevant:

a. Proliferation of Offensive Systems. The incentives to increase offensive forces to overwhelm the defences by raising the volume of incoming warheads will increase as defences are perceived to be less than fully effective. Far from contributing to arms control, less-than-perfect defences are much more likely to lead to a proliferation of offensive systems.

b. Switch to Counter Value Targeting. Faced with fairly effective defences of military and other government targets, the Soviet Union can switch more of its targeting to urban centres. If only between 10 and 50% of their warheads aimed at military targets such as missile silos penetrate US ballistic missile defence this can leave a larger number of US missiles intact on the ground than will be the case at present. But if 10-50% of Soviet warheads aimed against cities get through, this will remain a devastating action in war and therefore an effective threat in peacetime. According to official US projections, and depending upon the yield of warhead used, a 5% leak in US defences against a 10,000 warhead Soviet attack targeted on cities will leave between 30 and 50% (40-60 million) of the US urban population dead.

c. Facilitation of Offensive Countermeasures. Gaps in the defences can be increasingly exploited by effective countermeasures, whose technology can be developed at an equal or greater pace than the defences themselves.

B. POINT (OR LIMITED AREA) DEFENCE

11. Point (or Limited Area) Defence would be a major expansion of the terminal-phase defence already developed in the 1960s beyond the right codified in the ABM Treaty to a single such system. It is, strictly speaking, a separate issue from the sort of defences largely based in space which are under consideration in the context of the SDI, but it seems desirable, for the sake of completeness, to set out briefly the advantages and disadvantages of this concept.

12. As defined in para 8(b) above, the possible advantages of such a limited defence system are:

a. Technical. The requirements are simpler, cheaper, and smaller-scale than for comprehensive or less-than-perfect BMD. No space-based assets need be involved, although ground-based interceptors can be compatible with space-based non-attack support facilities (eg sensors). Hence some of the advantages

of the layered defence, but also of the drawbacks of space-based defence, can be incorporated. Targets are harder and subject to close control on the part of defender. Some of the technologies necessary are apparently within reach:

- (1) Some upgraded surface-to-air missile capabilities (eg Patriot, SA-X-12) can provide potential ABM capability;
- (2) High-acceleration interceptors and sensors that can discriminate at higher altitudes are now becoming available;
- (3) There seem to be improved possibilities for non-nuclear kill at "safe" altitudes (above 50,000 feet).

b. Strategic and Political. Effective ballistic missile point defence of US land-based ICBMs will protect them against a Soviet first strike conducted by such missiles (though not by other means). Point defence may also improve survivability of C3, and thus avoid decapitation of war effort. Point defence may not afford an assured degree of protection to the intended target, but it can still raise the "entry price" to the aggressor to an unacceptably high level in terms of numbers of RVs, forcing him to expend more forces than he destroys. This effect can be enhanced by selective defence of specific targets. Even simple defence (ie interception of only first one or two incoming RVs) may create sufficient attack uncertainty to deter aggression. Even if totally ineffective in protecting targets, point defence may, by requiring an attacker to launch a large and complex attack, make BMEW easier, and thus facilitate timely retaliation. Finally, point defence is arguably the best form of defence for high value assets in Western Europe against ballistic missiles; short and medium-range ballistic missiles present slower targets than ICBMs, albeit with a shorter flight time. An expansion of point defence is arguably negotiable with the Russians in view of their already established commitment (Moscow ABM system) and current research.

13. The likely disadvantages are:

a. Technical. The scale and complexity of countermeasures required will be less than in the case of comprehensive or less-than-perfect defence. Point defence systems will probably have to operate in a hostile nuclear environment and will be subject to localised weapon effects such as electromagnetic pulse (EMP) and thermal flash. There will be a risk of self-inflicted damage caused by interception close to the target. If defence systems are numerically limited, not only interceptors but also ground-based support facilities (eg radars) may need to be mobile and/or deceptively based. Co-located support components which carry distinctive "signatures" can reveal which ICBM sites are defended. A lateral but highly important point is that point defence of ICBMs will be perhaps more costly and difficult than alternative means of protection, such as mobile ground basing and increased emphasis on SLBMs. Point defence will have to be judged on its technical and financial merits, and weighed against other options already under development.

b. Strategic and Political. Point defence offers no prospect of defending civilian targets such as cities against massive attack, the conclusion reached in the late 1960s which provided the basis for the 1972 ABM Treaty. Moreover, it positively invites a switch to counter-city targeting. Since point defence probably cannot destroy all incoming warheads, the aggressor may elect to pay the "entry price" by multiplying the number of RVs devoted to each target especially if he has already increased his warhead inventory. Selective point defence may be detected prematurely by an attacker who will then take countermeasures. Point defence of missiles by one side may be perceived by the other as an attempt to retain a decisive capability for nuclear attack, or even as part of a first strike strategy. Some C3 targets are "soft" and/or large, may not be time-urgent like ICBMs, and thus are more likely to be targeted by BMD-proof systems such as air breathers. Point defence of C3 is closely associated with the pursuit of nuclear warfighting doctrines and therefore is politically

controversial. As SLBMs become capable of greater accuracy and use as counter-force weapons, the dependence on ICBMs may well decrease. Investment in point defence may well represent an expensive and risky form of protection for obsolete or superfluous systems. The impact on small national deterrents could be significant. Development of point defences will also add to the complexity in maintaining the strategic equilibrium and East/West relations generally. Any ABM upgrade will have a significant and perhaps destructive effect on the 1972 Treaty, one of the bedrocks of current stability and security. The Soviet Union may well benefit more than the United States from an expansion in point defence, given its current vulnerability to regional nuclear threats (UK, France, China) and the possibly greater importance of Soviet C3, which is needed to preserve national leadership and goals intact during a nuclear war. In addition the Russians are perhaps already better placed than the United States to deploy such system in the near term.

IV. SPECIFIC EUROPEAN FACTORS OF SDI

A. GEOGRAPHICAL COVERAGE OF BMD

14. President Reagan and his Administration have continually insisted that any comprehensive BMD system will have to cover not only US territory and assets but the whole of NATO as well. If such a system does not extend with the same effectiveness beyond US territory, US Allies will be more exposed to a continuing ballistic missile threat, in addition to the other threats identified above. The risk of this happening cannot be wholly dismissed. In particular, the short flight-times of ballistic missiles targeted on Europe will make it difficult to deploy the full panoply of defences against them which may theoretically exist to protect the continental United States.

B. EFFECT ON THE US STRATEGIC GUARANTEE

15. NATO's strategy of flexible response rests on three levels of response in any conflict: non-nuclear warfare, use of short and

intermediate-range nuclear weapons, and strategic employment of nuclear weapons. Assuming effective BMD systems are in place in both the US and USSR the ultimate deterrent threat will be limited to air-breathing (bomber, cruise missile) systems. What impact, strategic, and political, will this have on the overall cohesion of the Alliance and the security of Europe?

16. The arguments that BMD will in these circumstances strengthen the US guarantee to Europe have been set out in para 6(b) above. On the other hand, whether or not leakproof defence against all ballistic missiles can ever be achieved, US cities will remain significantly at risk, primarily from air-breathing systems. The risk may be lower than at present, but there will have to be a very large reduction, beyond present forecasts, before the risk disappears. Given the previous assumptions of no radical asymmetry between the superpowers in the development of BMD, the technical improvements which progressively plug potential BMD leaks, and thus somewhat reduce the millions of casualties which the United States can expect in a strategic nuclear exchange, will, as they are matched by the Russians, simultaneously undercut the effectiveness of the US ballistic missile deterrent. To the extent that numbers of air-breathing systems multiply on both sides to compensate, the deterrent balance prevailing today will theoretically persist. In terms of the balance of strategic advantage, therefore, the theoretical case can be made that the security of the US guarantee to Europe will be neither enhanced nor undermined by BMD.

C. EUROPEAN REACTIONS AND EFFECTS ON ALLIANCE COHESION

17. However, the response of European publics are most unlikely to be dictated by cold reasoning of this kind. They are much more likely to believe, and to act on the belief that the balance of nuclear risk within the Alliance has tilted heavily in favour of the United States. Europe will remain exposed to a range of Soviet nuclear threats; whereas the US will be freed from its 30 year old vulnerability to Soviet ICBM attack. There will undoubtedly be widespread apprehensions, not necessarily logically justified or even internally consistent, that the topmost rungs of the escalatory ladder are being removed, thus making lower-level (conventional and

theatre nuclear) conflict more likely in Europe. There may well be a fear that the Russians will be less deterred than they are today from threatening or embarking upon a conflict, since with BMD in place on both sides Moscow may have greater hopes that the war will remain conventional, and that its numerical superiority at the conventional level will guarantee a relatively painless and certainly non-nuclear victory.

18. Paradoxically, European public opinion may at the same time become more worried that a subsequent US Administration, imagined safe behind BMD walls, may be more likely to begin a limited nuclear war confined to European soil, which will lead to the continent's wholesale destruction. INF deployments were intended to reaffirm the credibility of extended US deterrence, since the Russians insist that use of INF would lead them to make a strategic response against the US homeland. If this were felt to be negated by BMD covering principally the US (whatever the continuing threat from air-breathing systems), fears could grow in Europe of a limited nuclear war, confined to European soil. The consequences of Soviet BMD for the effectiveness of the UK and French deterrents would also be a major concern. The net result of all these factors may be to exacerbate intra-Alliance tensions (to a far greater extent than the INF decision), without real strategic gain, and at the cost of provoking serious and widespread anti-Americanism in Western Europe. This situation presents the Soviet Union with many propaganda options. They will certainly intensify their campaign of allegations that the Americans plan to wage limited nuclear war in Europe while maintaining their own homeland as a sanctuary. They may even enhance the effect by openly offering the US an arrangement whereby Soviet offensive systems will not be used against the continental United States itself provided that US forward-based systems in Europe are not fired at targets in the USSR. Even if such a proposal were vigorously rejected by the US, doubts could linger in European minds about future US dependability.

V. ASATS LIMITATIONS: BALANCE OF ADVANTAGE

19. General. Any assessments of the balance of advantage in future ASAT controls must take account of the respective deployment of, and dependence upon, satellites by both sides; and the broader elements governing stability and deterrence. Other factors to be considered must include the wider political aspects; the financial implications (para 26 below); and the practical possibilities (para 33 to 42 below).

20. Differential Satellite Dependences. East and West vary significantly in their dependency on different satellite types. The West is more reliant than the East on surveillance and communication satellites (COMSAT). The Russians, on the other hand, rely more on satellites in the tactical reconnaissance real-time targeting role, especially in naval operations, where their anti-shiping capability is a threat to NATO's Atlantic reinforcement route. Since the Soviet armed forces operate largely on or close to the European land mass they could use currently redundant land lines for command and control more easily than the Western forces who are widely dispersed over the globe and therefore depend more on the survival of geostationary COMSAT systems. Moreover NATO's posture as a defensive alliance means that strategically it must depend more on surveillance (especially by satellites) to cancel out the advantage which an attacker would otherwise gain by surprise.

21. In assessing the overall balance, it is noted that the Russians carry out many more satellite launches, but that their satellites tend to be much simpler, less reliable, and shorter lived than those of the US and can carry out fewer tasks. They thus need large numbers to provide continuous coverage. On the other hand, the scarcity of Western satellites and launch capability means that the US probably enjoys less backup or redundancy, and might not be able to achieve the same "surge capability" in their launch rate in time of war or crisis. The US maintain far fewer satellites than the Russians in the currently threatened low orbit category, but each has a more important role to play than its Soviet equivalent. Those US satellites in high orbit are also more essential to the

defence capability than similar Soviet systems are to the Russians, but are not at present under any threat. The West has more at stake at both altitudes.

22. Implications for Strategic Equilibrium. At a time of rising tension, strategic instability could be much increased by the development by either side of effective ASAT capabilities at both high and low orbits. A proven capability on one side to destroy the other's satellites might give rise to a great temptation to use it, especially if neither side could be confident that the other would resist temptation. At present, ASATs pose only a tactical threat. But in the future, as satellites come to play an increasingly vital role, the threat could be far more serious. The risk to either the US or USSR that they could lose their strategic eyes and ears at the outset of hostilities, or even in a serious crisis, would pose a threat to both which would itself be gravely destabilising.

23. Political Factors. The uninhibited development of military capabilities in space risks adding to the distorted but not uncommon perception that Western governments are unable to keep a firm grip on the arms race. The impact of this could in turn influence the degree of public support for NATO's defence policy and programmes. On the other hand, the statements issued this year by the United States about potential talks on military space activities reaffirmed to Parliaments and publics throughout the Alliance that the Allies are interested in negotiations on space. The US undertaking to seek agreements which could lead to verifiable and effective limitations on anti-satellite weapons is tangible proof of the seriousness of the Western approach in general and that of the US in particular. President Reagan's speech at the UNGA has emphasised this. The strong welcome given by both Governments and publics to US and Soviet agreement to enter into new negotiations emphasises the widespread acceptance of the desirability of controlling space systems.

VI. FINANCIAL IMPLICATION OF BMD AND ASATS SYSTEMS

A. BMD/SDI

24. As far as dedicated BMD weapons are concerned, many of the

components of a potential BMD system are only at the earliest stages of research; in most cases they have not left the drawing board. It will be many years, if ever, before they can be seen to be effective. This makes an assessment of the eventual cost more than usually difficult. Estimates provided to the US Congress range from \$200 billion using current technologies (with a \$50 billion annual maintenance cost), to \$1,000 billion. The final cost could well exceed this. If the programme moves from the research to the development and testing stage, the long gestation period of the project will make it vulnerable to delays or cuts. However, political and industrial momentum may make cancellation or major deferments, if shown at a later stage to be desirable, that much harder to achieve.

25. At a time when there are increasing strains on defence budgets through the Western world in order to provide for enhanced defence at the conventional level, and when these pressures are having a particular effect on national budgets, a US decision to move substantially into SDI development will have a much wider impact on the defence of the West. Throughout the transitional period towards the goal of leak-proof BMD, the US will need to keep its nuclear offensive forces in being; indeed, as US officials have consistently argued, the requirement to develop the nuclear triad will continue to exist. But the costs of these forces are considerably less than those of conventional forces. In the inevitable competition for resources, nuclear forces could escape largely unscathed, as representing the highest strategic priority. Pressure for cuts in conventional forces affecting Europe in order to accommodate the new SDI demands would be likely to increase, and might not be so robustly opposed by future US Administrations.

B. ASATS

26. An assessment of resources currently devoted to US and Soviet ASAT programmes leaves an unclear picture. US cost estimates suggest that the Russians spend more on satellites than the rest of the world put together. These probably do not achieve US levels of value for money. Their system of frequent launches is probably not economically optimal and their very expensive manned research

programme seems to achieve little militarily that unmanned satellites cannot. Looking to the future, some protection of satellites can be achieved against ASATs by means of manoeuvrability, redundancy, hardening or a "shoot back" capability. However, all these survivability measures tend to degrade the satellites' primary mission and could, in turn, be countered by more sophisticated ASAT devices. Any move forward from the present relatively crude systems, involve a radical increase in resources, with a consequent impact on defence spending in other areas. Protection for satellites by means of acceptable arms control arrangements seems likely to be less expensive than such a process.

VII. ARMS CONTROL

A. CURRENT TREATY PROVISIONS

27. At present military activities in or directed at outer space, and defences elsewhere against ballistic missiles are constrained by the following agreements:

- a. the 1972 Anti-Ballistic Missile US-Soviet Treaty (as amended) which allows the deployment around a national capital or at one missile site of a maximum of 100 interceptors, together with associated control radars. Only the Russians now exploit this allowance, deploying an ABM system around Moscow;
- b. the 1967 Outer Space Treaty which bans the deployment in space of nuclear and other weapons of mass destruction;
- c. the 1963 Partial Test Ban Treaty which prohibits nuclear testing in space;
- d. the SALT agreements which ban interference with satellites designed to monitor compliance with arms control agreements; and
- e. The 1971 Bilateral Accident Measures Agreement, in conjunction with the 1973 Prevention of Nuclear War Agreement, which oblige the US and the Soviet Union to refrain from

interference with the attack early warning systems of either side, which would include their satellite components.

In addition the UN Charter prohibits the first use of force (which includes the use of force against satellites) albeit with the important caveat which allows for the right of self-defence. There is also the Convention on Registration of Objects Launched into Outer Space of 1975, which requires that the Secretary-General of the United Nations be provided with information concerning space launches, including the general function of the space object.

28. The present development of ASATs is only lightly affected by these constraints. The more sophisticated and extensive they become, the more these legal commitments will begin to bite on further development. A full defensive system such as envisaged under the SDI would spell the end of this treaty regime. A Point (or Limited Area) defence system, ie an extension of the present arrangements allowed under the ABM Treaty, need not be so damaging to the present corpus of international arrangements, but would still require substantial changes. US statements continue to stress that the SDI is being conducted in compliance with the ABM Treaty and that there is no present intention of altering it; but that in the event of the SDI showing promise, the Treaty might have to be amended before long.

29. The ABM Treaty is subject to regular review but, unlike the SALT agreements, it will last indefinitely unless terminated by one of the two parties. It is significant in two major respects. It codified the de facto acceptance by both sides of the principle of mutual deterrence: ie that they would live with the threat against themselves which stemmed from the negotiated limits on both offensive and defensive systems; and that they would not seek radically to shift the competition into defensive systems. Secondly, the ABM Treaty represents a significant political achievement in terms of East/West arms control. Decisions that required the abrogation or a major amendment of this keystone could have far-reaching political consequences in terms of future prospects for East/West relations. There could also be direct consequences for other areas of arms control. Development of BMD systems which led to increases rather

than reductions in offensive forces would destroy the basis not only of the present strategic arms constraints, but also damage the prospects for further limitations. The chances of preserving the Non-Proliferation Treaty (NPT) arrangements into the next decade and beyond would be jeopardized, with non-nuclear Parties less and less convinced of the good faith of the nuclear Parties to fulfil their commitment under the Treaty to reduce nuclear arms. The temptation to the near-nuclear states, particularly those not Parties to the Treaty, to use this excuse to take a domestically popular decision to acquire nuclear weapons, could become increasingly hard to resist.

B. CONSTRAINTS ON BMD

30. If Soviet efforts to develop BMD are the leading rationale for US research programmes, then there is a prima facie argument in favour of seeking constraints on both. The case for doing so is also strengthened by the relevance of the arguments for linkage between offensive and defensive forces (which are explored in greater detail in paras 43 to 46 below). If reductions on offensive forces are to be attainable, then some constraints on BMD work may well be required. Conversely, to ease the formidable problems facing defensive systems, it may well be necessary to ensure that levels of offensive forces do not run free.

31. The United States and Soviet Union have agreed to meet in Geneva on 7 January with a view to entering into new negotiations with the objective of reaching agreement on the whole range of questions concerning nuclear weapons and outer space arms. If this negotiating process is to include constraints on BMD related systems, it will be essential that development and testing of systems are not pursued beyond the point where political decisions on such constraints are no longer relevant or possible. Hence the value of the US assurance that current research work in the SDI context will continue to be conducted in strict accordance with obligations under the ABM Treaty, which will remain an overriding constraint until and unless amended.

32. Apart from this Treaty, which deals with dedicated ABM systems, and any limitations on ASATs which may be negotiated in the near term, the content of a more elaborate regime of constraints is difficult to predict at this stage, given the far ranging nature of the SDI itself and the many elements of technology now under consideration. Nonetheless, in the light of the apparent need to proceed cautiously, the French proposal of June 1984 for a time-limited but renewable constraint on DEWs deserves further consideration, including the problems of verification. A constraint of this kind could ensure that, as research continues, policy options for arms control are not pre-empted by technological developments. Further possibilities for constraints should be expected to emerge from the discussions to be launched in January with the Russians, and from any exchange of ideas on the relevant technology such as already suggested by President Reagan.

C. ANTI-SATELLITE SYSTEMS (ASATS)

33. Certain connections between ASATs and BMD should be noted:

- a. The present generation of relatively crude weapons with ASAT potential is not capable of acting as the basis for an effective BMD. However, any space-based weapon capable of destroying a hardened, manoeuvring target such as a re-entry vehicle will also be capable of destroying or damaging a soft and predictable target such as a satellite. In other words, constraints on BMD development would have an impact upon the improvement of ASAT weapons.
- b. Some ASAT technology such as sensors and, if and when developed, DEWs could however have BMD applications. Thus constraints in the ASATs context could place certain limits upon the full development of a comprehensive BMD system.
- c. Any such comprehensive system will depend upon space-based assets which will often in themselves be highly vulnerable. In consequence, attacks by new generations of ASAT systems would be a significant threat to any BMD system relying on space-based elements.

34. It should also be recognised that the time-scales for ASAT and BMD development are significantly different. The former systems are now in the process of deployment (in the case of the Soviet Union) or full-scale testing (in the US case). However, decisions by either the US or the Soviet Union to move beyond the research stage on BMD are unlikely to be taken in this decade; and BMD options may not be ripe for full-scale development, let alone deployment, until the next century. If in the near-term an agreement on ASAT constraints were reached which at a later stage proved to stand in the way of a decision that further development of BMD-potential systems was desirable, then it would be open to either side at the time to require appropriate changes in the ASAT agreement, in order to allow further work on BMD to continue. For the latter to happen, changes would in any case be necessary to the ABM Treaty, and amendments to the ASAT agreement could be made in the same context.

35. In discussing possible controls on ASATS two points emerge:

a. It is a political and military imperative for the US at least to balance the present Soviet ASAT capability. This could be done most easily by completion of the single US system already under development.

b. This does not eliminate the need for serious study of arms control possibilities. Growing Western reliance on satellite systems makes it imperative that all venues be explored to protect these vital assets. Arms control is one such avenue.

36. President Reagan's April 1984 Report to the Congress on ASATs emphasised that "the US will consider verifiable and equitable arms control measures that would ban or otherwise limit testing on deployment of specific weapons systems, should those measures be compatible with US national security." In his September speech to the UNGA and in subsequent statements President Reagan has confirmed that his Administration is "prepared to discuss a wide range of issues such as ... what has been called the militarisation of space ";and that" during the talks we would consider what measures of restraint both sides might take while negotiations proceed."

37. Among possibilities for arms control might be one or more of the following elements:

- a. mutual restrictions to one low-altitude ASAT system on each side;
- b. a ban on the development and testing of new ASAT systems, including high altitude ASATS; and
- c. confidence-building measures, designed to increase the two-way flow of information and to prevent accidents affecting satellites.

38. Of these options, a and b represent real constraints which, if arms control in this area is perceived as desirable for Western interests, will correspond to that requirement. A regime of specific confidence-building measures could be a useful adjunct to concrete constraints. It must however be recognized as an addition to, rather than a substitute for, an agreement prohibiting or limiting ASATs. Confidence-building measures alone would not greatly advance Western interests. Sole reliance on such measures, especially of a declaratory nature, would be inconsistent with the Western requirement, well-established in other areas of arms control, for balanced and verifiable agreement with real military significance. In an area as important as ASATs, it is arguable that we should not settle for what by comparison would be seen as less.

D. ASAT VERIFICATION

39. Any agreement which cannot be verified will be unacceptable, and US concerns over the problems of adequate verification of any limitations on ASATs are clearly justified. We must recognise that US technical experts are best placed to make a judgement and technical briefings by them suggest that verification of the abolition of all existing ASAT systems would indeed be very difficult without the kind of intrusive inspection of ground sites which the Russians have persistently refused to accept.

40. However, it is also our understanding that testing of new ASAT systems might be verifiable with reasonable confidence. The emphasis of Soviet military doctrine on fully proving all new weapon systems prior to deployment renders it inherently improbable, though not technically impossible, that they would deploy a new ASAT without full system testing, which should be detectable. Verification problems would not therefore seem insuperable, especially if the distinction between high and low orbiting systems can be preserved. There is also the additional option of survivability measures which could be taken to preserve or proliferate US satellites as an insurance against Soviet bad faith in the observance of any agreement.

41. There might remain a residual risk that the Russians could evade verification measures by separately testing out individual sub-systems for an ASAT. This might enable them to assemble the tested components into a complete ASAT system which they could then test overall by openly breaking out of the arms control regime and proceeding to deployment. But although this would give a certain technical lead, it is unlikely that it would provide an immediately significant military advantage. At the moment of open break-out the complete system would not have been operationally tested and time would probably have to elapse before it could be proven and produced in numbers. Even after this stage it would be competing for scarce launch facilities with other Soviet space priorities such as launching replacement satellites. An ASAT arms control break out in wartime would therefore seem unlikely to influence seriously that particular conflict.

42. The major disincentive to Soviet non-compliance with an ASAT limitation agreement in peacetime would be the consequences of any US response. Soviet calls for the demilitarisation of space prove that the Russians are keenly aware that their space technology is rarely the equal of its American counterpart. Nowhere is this more true than in the field of ASATs. The Russians have been testing their current system for twenty years with limited success. They have seen the United States move in a few years to a point where they are testing a system which is more advanced than their own. The crash programme in the United States that would follow any

Soviet abrogation of an ASAT Treaty makes any possible Soviet advantage appear extremely transitory and hardly worth the inevitably disastrous impact such a move would have on superpower relations. It is likely that in the time necessary for the Russians to test their system adequately and evaluate the results, the United States could close the gap. Moreover, the Russians would also have to reckon with the continual possibility that any covert non-compliance such as a concealed testing programme would be revealed before they were in a position to benefit from it by completing development of a new ASAT system. There would always be the risk of a defector revealing details, or of unpredictable developments in US surveillance and detection technology eventually revealing concealed space activities even if they were initially undetectable.

E. LINKAGE BETWEEN OFFENSIVE AND DEFENSIVE FORCES

43. At the time of the Soviet offer in June of talks on military developments in space, for which they later refused to take the US "Yes" as answer, it was emphasized from the US side that the logical connection between ballistic missiles (ie offensive nuclear forces) and any talks on space arms control could not be ignored. It was noted that there was a distinct space-related element to ballistic missiles whose trajectory to target carried them outside the atmosphere; that many offensive missiles relied upon systems deployed already in space; and that arms control agreements were monitored to a large extent by space assets. The Russians rejected the connection at the time not on grounds of logic but for strictly political reasons; they were apparently anxious to constrain military development in space for their own purposes, but equally keen not to resume their seat at the negotiating table on offensive nuclear forces (START and INF). Following the Gromyko visit to Washington and his talks with the President and Secretary Shultz, this untenable position was abandoned, and the intrinsic linkage between the two sets of systems accepted for the purposes of the continuation of the dialogue.

44. How should this linkage be best handled to obtain the maximum benefit for the West? Given known Soviet concerns about military

developments in outer space, of which they make surprisingly little secret, the prospects of constraints on defensive systems provides an obvious and important leverage for the West to obtain Soviet concessions over the reduction of offensive forces. Hence, it can be argued that the SDI has already acted as a stimulant to Moscow to cooperate in the pursuit of arms control solutions to the problem of reducing nuclear weapons. As stated by the White House on 28 November, "it is intended that our research efforts under the SDI complement these arms reduction efforts".

45. The concept of complementarity between the SDI and nuclear arms control will be the key to future progress in both. As noted in paras 30 to 32 above, certain points stand out:

- a. The greater the reductions achieved in offensive forces, the more credible becomes the capability of defensive forces to deal with the remaining missiles. Radical reductions in the former will make it easier for limited BMD systems to function effectively;
- b. Conversely, if both BMD development and offensive force levels are allowed to run free the objectives of the SDI will become even harder to achieve;
- c. According to current assessments, the Russians are likely to respond to BMD development by the US by increasing the levels of their offensive forces.

46. The linkage between offensive and defensive systems will therefore require the most careful handling. Negotiations can be conducted in parallel which envisage constraints on both, and thus allow the West to exert maximum leverage on Moscow. At the same time, it will be important that progress in either set should not be precisely dependent on what is happening in the other. The Russians should not be allowed to dictate the overall balance of the outcome, as they insisted on doing previously by linking the START and INF negotiations. Ultimately, as the final shape of agreements began to emerge, it would be necessary to pull the threads together to ensure that the net outcome from both negotiations produced a significant advantage for the West.

V111. CONCLUSIONSA. BMD/SDI

47. a. The United States research programme for SDI raises very far-reaching questions for the Alliance and the defence of the West. These have to be addressed in the near term. Expansion of the SDI programme would challenge a fundamental aspect of US-Soviet relations, with unpredictable consequences in both the arms control field and for East/West relations generally, not least because of the inevitable impact on the ABM Treaty;
- b. even if a system of leakproof defence against ballistic missiles were eventually possible, the transition period between the present situation and total BMD would be a time of potentially grave instability. Nor would such a defence provide protection against non-ballistic missiles threats. After prodigious expenditure and periods of transitional strategic instability, development of BMD could well leave the fundamental nuclear balance between the US and Soviet Union unchanged. In theory there might thus be no effect on the major incentives influencing a US President to risk US cities in support of America's overseas Allies and interests. For Europe, on the other hand, the effect of US BMD deployment might, in the worst case, have far-reaching consequences for the continued cohesion of the Alliance and no strategic benefit;
- c. there seems however little chance that, in the face of likely Soviet countermeasures, such a comprehensive system can be created. BMD systems offering less-than-perfect protection would in addition to the above and other objections, encourage the proliferation of offensive systems and increased counter-city targeting; the balance of advantage in Point (or Limited Area) Defence systems is less easy to define, but to be fully effective such systems would have to be complemented by radical reductions in offensive forces;

- d. The enormous and increasing expenditure on BMD over a period of years is likely to have adverse effects on other US defence programmes, especially for conventional forces, of direct importance to European security concerns.
- e. Some scope exists for arms control possibilities although, apart from the maintenance of the ABM Treaty, their precise shape can only be elaborated after the US-Soviet talks start in January. Early exploration of these possibilities could lead to the avoidance of an expensive spiral of technological competition, to the enhancement of Western security, not least by securing reductions in offensive forces, and the creation of a firmer basis for a lasting US-Soviet relationship.

B. ASATS

48. For strategic and political reasons, it is clearly in Western interests that the US should balance the current Soviet ASAT capability. At the same time, Western interests could be served by measures of arms control. These could include restrictions on low altitude ASAT systems; a ban on the development of new ASAT systems including high altitude ASATs; and, to complement but not to substitute for these constraints, a regime of confidence-building measures.

C. LINKAGES

49. a. A technical connection exists between BMD and ASATs. However, deployment time-scales are very different. Any ASATs constraints agreed in the near term could thereafter be adjusted (as the ABM Treaty would have to be adjusted) to allow for new BMD developments which in the longer term appeared desirable.
- b. A logical and political connection exists between offensive nuclear forces and future BMD systems. Constraints on the latter could provide important Western leverage over the Soviet Union in the context of controlling the former. Conversely, limits on offensive nuclear forces would be needed to allow BMD to be effective, especially in a limited form. Research

on defensive systems should, as stated by the White House on 28 November, complement these arms reduction efforts.

CHEMICAL WEAPONS

Introduction

1. The United States and United Kingdom agree on the growing Chemical Weapons (CW) threat, and on the importance of removing it by negotiating an adequately verifiable ban on such weapons. Given the existing imbalance between Western and Soviet capabilities, continued efforts by the United States Administration to secure Congressional approval to modernise the United States capability by binary production would seem to us a useful step in the context of improving the Western negotiating hand at Geneva and promoting the success of the talks. However, given the present political sensitivity of CW production in the West, such a move would not be devoid of domestic difficulty in the United States or elsewhere. In order to secure support for it, the present Western negotiating hand would have to be shown to be serious and reasonable.

2. Equally, failure to reach an acceptable result in the negotiations would underline any need to modernise current United States capabilities. This would be expensive and politically hazardous; the prospect of United States binary weapons intended for use in Europe would be highly controversial. However, the political problems surrounding CW rearmament should be eased if the West had already been shown to have made exhaustive efforts to achieve a negotiated ban; and if the blame for failure could clearly be placed at the door of the Soviet Union.

Geneva Negotiations

3. Significant progress has been made at Geneva since 1982, including Soviet acceptance (February 1984) of continuous international inspection of stockpile destruction. This conceded for the first time the important principle of intrusive on-site inspection on Soviet soil.

United States Draft Treaty

4. The tabling of the United States Draft Treaty (April 1984) was a major step since it emphasised the Western requirements for adequate verification of compliance. There is already outline agreement in Geneva on eleven out of eighteen of its provisions. But a crucial struggle lies ahead over the hardest issues of verification and especially challenge inspection, the ultimate deterrent to non-compliance.

Challenge Inspection

5. Article X of the United States draft is a bold and imaginative approach. However, it has not gained the support of the neutrals. Moreover, while there has so far been solid Allied support in public for the United States overall approach, there is private consensus among close United States Allies, including the United Kingdom, that it would pose an unacceptable threat to the security of sensitive Allied facilities. The Russians have thus had little difficulty in rejecting and then exploiting the proposal to justify their own failure to negotiate seriously in good faith on verification.

6. United Kingdom difficulties on Article X are not dictated purely by our own security concerns. We also believe, more importantly, that it would prove an inadequate deterrent. The United States have consistently admitted that even if the Russians sign a Treaty with a "no refusal" clause, they would in fact refuse to accept any challenge inspection launched against them which could prove their non-compliance. Thus Article X would never in practice produce any "smoking gun". While it would provide a formal escape-hatch for United States withdrawal from the Treaty, the public justification for such a

radical step would not be strong, and the United States has admitted that it would not necessarily withdraw after Soviet refusal of a challenge inspection. The deterrent effect would therefore be very limited.

United Kingdom Proposal

7. On the other hand, the United Kingdom approach (outlined in diagram form at Annex A) envisages a graduated response with only a temporary initial right of refusal (as implied in earlier United Kingdom proposals approved by the Western Group at the CD); but thereafter steeply increasing costs for non-co-operation such as refusing or failing to co-operate with the alternative challenge methods set out below. It would not only ease the security problems for Western installations, but also strengthen the deterrent effect of the challenge inspection threat by providing for a cumulative build-up of domestic and international support for effective counter-measures (such as CW rearmament) against non-compliance. In the last resort, this is likely to be the only prospect to have a serious impact on Soviet decision making. The United Kingdom proposal also avoids the needlessly controversial distinction between public and private facilities in the United States draft Treaty which the Russians have used for propaganda effect.

Iterative Managed Access

8. If an immediate and unrestricted tour of the plant is refused because of the need to protect national security, then it would be a requirement of the challenged State to offer or allow an appropriate form of iterative managed access to enable the inspectors to make a reasoned

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judgement on whether or not a case of non-compliance had occurred.

Iterative managed access would therefore mean placing upon the challenged State the onus of disproving the challenge by permitting a controlled inspection. Within the constraints of national security (eg by screening off highly sensitive and unrelated features), the controlled inspection, to clarify progressively areas of uncertainty, would be conducted over a limited period of time which may be graduated according to the size of the site. Equipment for bona fide CW detection purposes would be proposed, to be approved by both sides. Unjustified refusal of useful and agreed instrumentation (eg magnetic anomaly detectors to detect underground storage tanks and piping) would be an indication of non-compliance. Once the challenge had been issued and until the procedure had completed its full course, the challenged State would not be permitted to engage in any activity which could cloak concealment, removal, destruction or reprocessing of its stocks. The inspection team even if not admitted would remain around the site to monitor exit traffic until the treaty non-compliance procedure had been completed.

Consequences of Non-Compliance: Graduated Response

9. Refusal of a challenge inspection or of iterative managed access would result in a graduated series of costs as shown in Annex A. These would culminate in a suspension of a State's rights and privileges of membership of the international organisation. This in turn could be treated by other states as a material breach of the Treaty, entitling them to suspend, in whole or in part, the operation of the Treaty in relation to the defaulting State. If a country other than the Soviet Union was suspected of non-compliance, this drastic but politically credible threat of withdrawal (and possible collapse of the Treaty) could encourage the Russians to bring their pressure to bear on the country concerned to comply.

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10. The United Kingdom proposal envisages completion of the entire process within a very limited period (seven days). During this period international pressure could be separately mobilized by all possible means (including action in the UN Security Council). The United States Article X specifies two days as the time scale for challenge inspection. We do not believe that any real military advantage would be lost by waiting an additional five days to enable domestic and international opinion to be brought more effectively into play.

Discouragement of Frivolous Challenges

11. The United Kingdom approach would contain a mechanism to deter frivolous challenges. This would prevent a State which made a challenge and which proved to be unfounded from launching further challenges within a year. Further unfounded challenges could incur progressively increased penalties. We believe this deterrent would be preferable to the United States fact-finding panel approach which would not in our view act as an effective filter against challenges made by countries such as Libya wishing to make mischief or acting as Soviet proxies. There would always be a Soviet and Third World representative on the fact-finding panel, either of whom could sponsor such challenges.

Conclusion

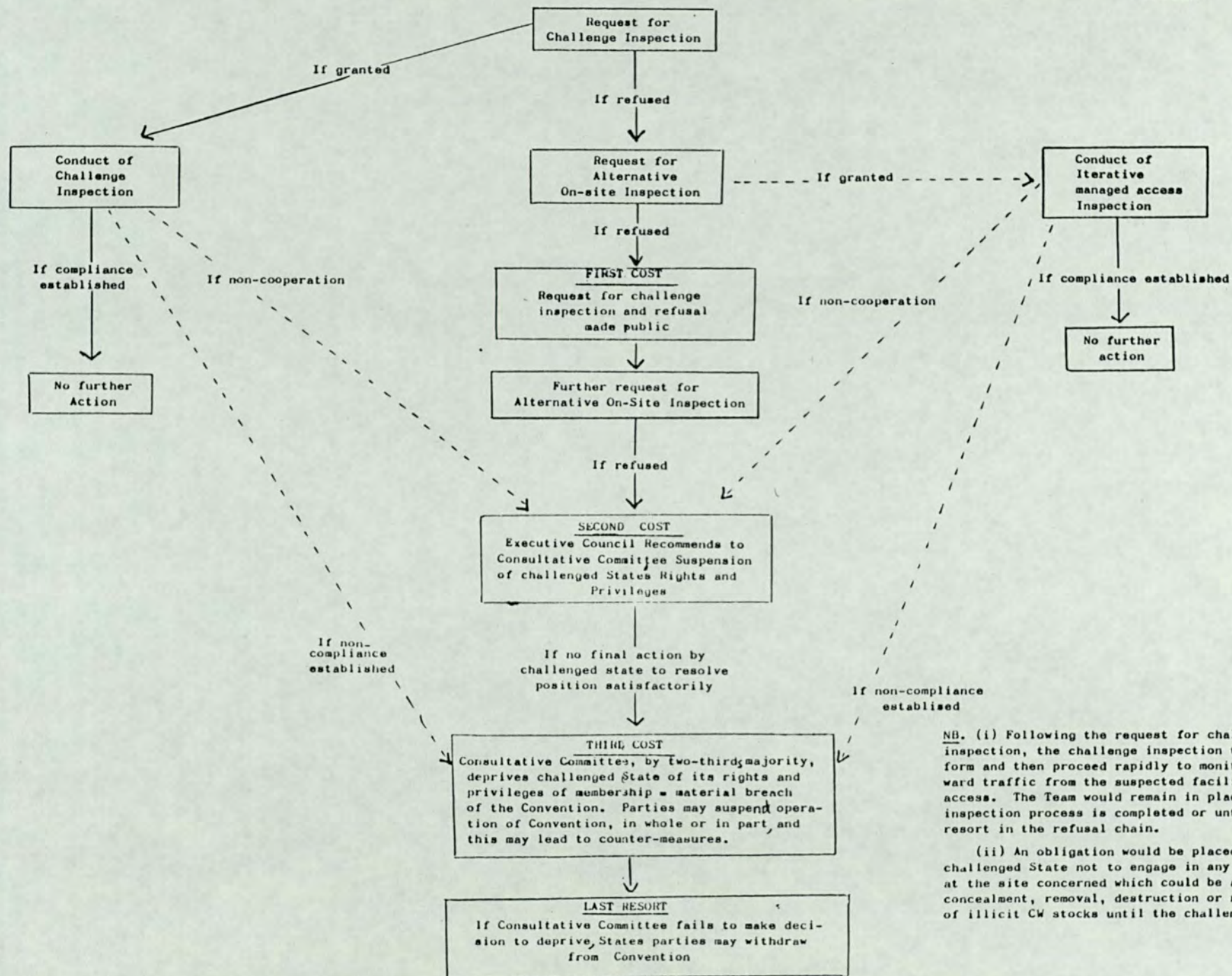
12. The United Kingdom and United States agree that 100 per cent perfect verification is unattainable. Compliance must therefore finally depend upon a credible deterrent such as the ultimate threat of intrusive challenge inspection. The United Kingdom refinement provides for a prompt, effective and publicly justifiable response if the Soviet Union

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refused, under challenge, to prove its compliance, together with a more secure procedure to manage and then penalise unfounded Soviet or proxy challenges against the West.

13. We therefore hope that the United State will reconsider its position. Even if our proposals prove unnegotiable at Geneva, their adoption as the Western position in this key area would better preserve Western unity; it would enable us to reduce Soviet opportunities to blame deadlock on unreasonable Western proposals or to wage a later propaganda campaign against modernisation of the United States CW capability, should this be required by failure of the current negotiations.

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NB. (i) Following the request for challenge inspection, the challenge inspection team would form and then proceed rapidly to monitor outward traffic from the suspected facility pending access. The Team would remain in place until the inspection process is completed or until last resort in the refusal chain.

(ii) An obligation would be placed on the challenged State not to engage in any activity at the site concerned which could be a cloak for concealment, removal, destruction or reprocessing of illicit CW stocks until the challenge was resolved.

NON-PROLIFERATION AND NUCLEAR TESTING

1. Preventing the spread of nuclear weapons is in the security interests of every country. As Secretary Shultz said on 8 January after the United States/Soviet Arms Control talks: "If you have the aspiration of eliminating nuclear weapons, the subject of non-proliferation has got to be right up on the front-burner".

WESTERN NON-PROLIFERATION AIMS

2. The prime aim for Western countries is to frustrate any attempts by Non-Proliferation Treaty Parties (eg Libya, Iran, Iraq) or by non-Parties to acquire nuclear weapons. We also seek to maintain the confidence necessary between nuclear suppliers and their customers, to permit nuclear trade to continue. The NPT, with over 120 Parties, is a major barrier to the further spread of nuclear weapons. It makes a key contribution to Western and international security. It bans the acquisition or manufacture of nuclear weapons by Non-Nuclear Weapon States (NNWS); and provides for verification by providing the legal framework within which NNWS accept IAEA safeguards on all their nuclear facilities.

3. It is desirable that the third NPT Review Conference in September should reaffirm the support of all Parties for the Treaty. Its outcome could have an important effect upon the Treaty's future; some Parties are already expressing doubt about its long-term prospects and the Parties will have to decide in 1995 whether or not to extend it. Criticism may be expected at this year's Review, as in 1980, of the alleged

failure of the NWS to honour their obligations under Article VI, which requires the Parties to pursue in good faith negotiations on nuclear disarmament. A negative outcome from the debate over Article VI could lead countries to question their commitment to the Treaty. A Western strategy to prevent this is therefore under discussion between the Allies; it could incorporate continued collaboration where possible with the Russians, who share with us comparable objectives for the Review Conference. An important part of this strategy could be the United Kingdom proposal for a Technical Co-operation Fund to benefit NPT Parties from the developing world. This would be most helpful in the context of debate about Article IV (peaceful nuclear energy).

NUCLEAR TESTING CONSTRAINTS

4. One element of the debate on Article VI at the Review Conference will be the inevitable focus by NNWS on constraints on nuclear testing. The resumed negotiations on nuclear weapons between the United States and the Soviet Union should help to deflect attacks. But it is predictable that many Parties will press for progress in the field of testing constraints.

5. A test ban is the only specific disarmament measure mentioned in the NPT; the preamble recalls the determination expressed in the 1963 Partial Test Ban Treaty by the United States, United Kingdom and the Soviet Union, to continue negotiation on such a ban. Many NNWS interpret this as being particularly relevant in the Article VI context, and see a ban as a key step towards nuclear disarmament. Many also allege

that the early conclusion of a Treaty banning nuclear tests will be the touchstone of NWS commitment to the NPT. The United States and the United Kingdom do not accept either view.

6. Non-aligned Parties, who mistakenly believe that problems in verifying a total ban have been largely resolved, can be expected to press hard at the Review Conference for new NWS commitments to resume test ban negotiations, and to threaten damage to the NPT if these are not forthcoming. Our technical arguments about the continuing problems of verification, summarised in United Kingdom working papers submitted to the Conference on Disarmament in 1983, remain solid. Our opponents refuse to address these in substance, arguing that the objections are marginal. They remain apparently convinced that a test ban is both desirable and possible.⁴ Some of our Allies are also attracted to this view.

7. To counter such arguments, the United States have placed increasing emphasis on the need to see any ban on nuclear testing in its proper security context; to set it in its correct place in the sequence of other disarmament measures; and to ensure that, as with all arms control agreements, basic Western security interests are not put at risk. President Reagan has also made an important proposal for a United States/Soviet exchange of observers at test sites to which the Russians have not so far responded.

8. In addition, we believe that there would be merit in considering a package of minor nuclear testing measures, which by indicating a degree of flexibility on our part could help our position. It is, however, important that such a package should not impede our respective testing programmes or damage Western security. Such a package, which we believe meets these criteria, could comprise -

i. A political understanding with the Soviet Union over data calibration on underground test sites, building on President Reagan's proposal;

ii. The ratification of the 1974 Threshold Test Ban Treaty and 1976 Peaceful Nuclear Explosions Treaty whose provisions the United States continues to observe despite non-ratification until now. In the light of previous United States Soviet positions, this would have to be integrally linked to a firm political agreement that;

iii. New negotiations would be immediately initiated with two objectives -

a. the possibility of agreeing a somewhat lower threshold (but no lower than would be tolerable in the light of continued United States, and United Kingdom, testing requirements) and

b. the simultaneous improvement of current verification provisions, to provide confidence in compliance both with the earlier Treaties and with any new agreements.

9. We consider that such a package -

- a. would not affect Western security adversely;
- b. would provide a solid basis on which to foster the continued health of the NPT;
- c. could represent a useful extension of constraints on Soviet activities, and
- d. could create an opportunity to enhance our knowledge and verification of their testing programme.

The Russians might jib at some elements in this package, in which case the Western position would not then suffer. Equally, given the apparent importance they attach to maintaining the NPT they might be prepared to make the necessary concessions which until now they denied the United States.