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Foreign Affairs and Defence

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DISARMAMENT AND ARMS CONTROL
IN THE NUCLEAR AGE

RECOMMENDED STRATEGIES AND POLICIES

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Canberra 1986



**DISARMAMENT
AND ARMS CONTROL**

in the Nuclear Age.

Recommended Strategies and Policies

Report from the Joint Committee on Foreign Affairs and Defence

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Disarmament and Arms Control Sub-Committee Chairman and Deputy Chairman
- Mr David Charles, MP and Senator Baden Teague.

RECOMMENDED STRATEGIES AND POLICIES

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PREFACE

This volume, Recommended Strategies and Policies, contains the concluding Chapters 21 and 22 of the Report from the Joint Committee on Foreign Affairs and Defence into Disarmament and Arms Control. It is hoped that the publication of these chapters as a separate document will result in more widespread dissemination of the Committee's analysis and principal recommendations.

The following page numbers (iv-715) correspond with the location of the material in the Report.

TERMS OF REFERENCE

On 8 December 1983 the Joint Committee on Foreign Affairs and Defence resolved to inquire into, and report upon:

'Disarmament and Arms Control'

The Committee referred this inquiry to its Sub-Committee on Disarmament and Arms Control.

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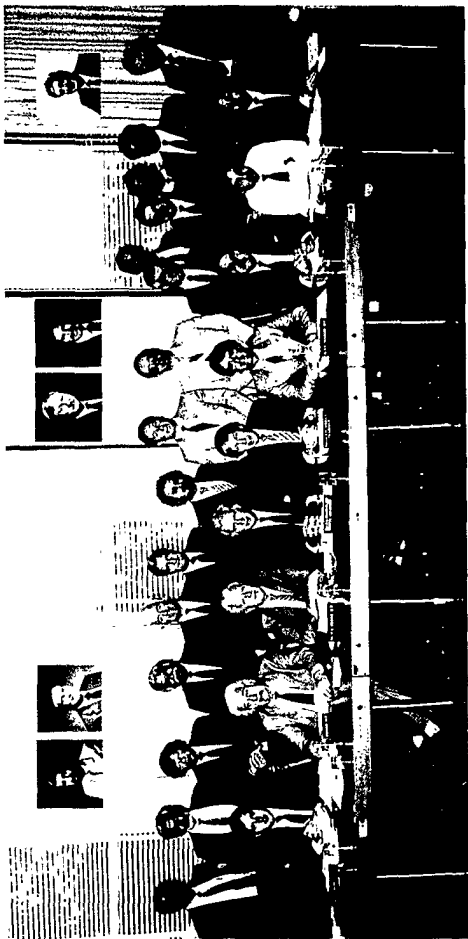
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**DISARMAMENT AND ARMS CONTROL
IN THE NUCLEAR AGE**

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FOREWORD

1. This Report has been prepared to facilitate more informed public debate in Australia over the dangers of nuclear war and ways of reducing its likelihood in the future. It is the culmination of nearly three years work in which the Sub-Committee considered a large number of submissions from interested groups and individuals, conducted public hearings across Australia, and held detailed discussions with Australian government officials, delegations from both the United States and the Soviet Union, and numerous Australian and internationally-known arms control specialists.

2. Distinguished overseas visitors included Mr Jan Martenson, the United Nations Under Secretary-General for Disarmament; Mr Asbjorn Eide, Executive Director of the International Peace Research Institute in Oslo; Dr Hans Blix, the Executive Director of the International Atomic Energy Agency; Ms Inga Thorsson, a former Swedish Disarmament Ambassador; Mr Josef Golblat and Dr Sverre Lodgaard, Members of the Stockholm International Peace Research Institute; Dr Kenneth Adelman, Director of the United States Arms Control and Disarmament Agency; Dr Vladimir Petrovsky, a senior Soviet Foreign Ministry official; Mr Robert Lindhard, Acting Senior Director for Defense and Arms Control Issues, US National Security Council; and Professor Michael Howard, Regius Professor of Modern History at the University of Oxford.

3. I would like to record my appreciation to my fellow Sub-Committee members, particularly Senator Baden Teague, the Sub-Committee Deputy Chairman, for their perseverance and hard work; and Dr Graeme Cheeseman, who served as specialist adviser to the Sub-Committee throughout its inquiry.

4. I wish also to thank Australia's Ambassador for Disarmament, Mr Richard Butler, for his valuable briefings; and the officers from the Departments of Foreign Affairs and Defence who contributed significantly to briefing the Sub-Committee as well as giving evidence and providing submissions; also Dr Desmond Ball and Mr Andrew Mack of the Australian National University.

5. The elimination or reduction of the risk of nuclear war is unquestionably the most important issue facing us today. While public debate over the nuclear issue is well advanced in Europe and North America, it is only just starting to take place here as more and more Australians are becoming aware that we would not be immune from the effects of a large-scale nuclear war. Despite this growing awareness, very little has been published in Australia on the nuclear debate, particularly on our role in contributing to the maintenance of global peace and security. Indeed, the debate that has occurred so far has tended to be simplistic and has not tackled the real issues at the heart of our nuclear age.

6. This report seeks to address this deficiency by providing a summary of the basic facts and issues that underly the nuclear debate as well as provide an assessment of Australia's contribution to disarmament and arms control. It begins with a description of our current international nuclear circumstances, then examines a number of specific issues of interest to Australia, and finishes with a discussion of what should be done to eliminate or minimise the risk of nuclear war in the future. It is our intention that the Report would be read right through as a series of linked arguments describing where we are now and where we should be heading in the future. Because of the complexity of the subject, the Report has been structured so that individual chapters can be read in isolation.

7. In addition, those who are already familiar with or wish to avoid the largely descriptive and, in parts, technical discussions contained in the early sections of the Report may wish to read only Part 5. This begins with a broad overview of our current and prospective circumstances and examines some possible future options. Part 5 then continues setting out the Committee's own views on what should be done in both the short and longer term to avoid the risk of nuclear war and to bring stability and peace to our world. This is followed by the Committee's summary and recommendations, which we submit for acceptance by the Australian Parliament and for implementation by the Australian Government.

8. The last two chapters of Part 5 - 'Recommended Strategies and Policies' and 'Summary of Committee Conclusions and Recommendations' - have also been issued in a separate 'summary' report entitled 'Recommended Strategies and Policies'.

9. We trust that the Report will add to and stimulate awareness and discussion within Australia of this very important subject. We also hope that the Report becomes a useful document for the many people around the world interested in the Australian perspectives on disarmament and arms control in the nuclear age. If the Report achieves these objectives, it will have fulfilled an important role.

David Charles, MHR
Chairman
Disarmament and Arms
Control Sub-Committee

CHAPTER 21

RECOMMENDED STRATEGIES AND POLICIES

Introduction

21.1 This Chapter provides the Committee's views on what needs to be done to ensure international peace and security in the nuclear age. The greatest danger facing humanity today is the threat of nuclear war. We will only be safe from this threat when nuclear weapons have been abolished. Our overall objective therefore should be to eliminate all existing nuclear weapons and set in place a means of preventing their reappearance at some time in the future. The Committee acknowledges that the complete abolition of present-day nuclear arsenals would take considerable time. While nuclear weapons remain in existence, we must also pursue measures which minimise the risk of them being used.

21.2 The Committee's views and recommendations cover strategies, organising principles and policies for satisfying these two basic objectives in both the short and longer term. In the Committee's view, our immediate goal should be to consolidate and stabilise our current nuclear circumstances, and begin moving toward a position of mutual deterrence at much lower levels of nuclear armaments than currently exists. This would involve pursuing policies which seek to:

- a. arrest the spread and continuing competition in nuclear arms;
- b. minimise the risk of nuclear war occurring by accident or miscalculation;
- c. establish a condition of mutual deterrence at reduced levels of nuclear armaments; and
- d. improve United States-Soviet relations, and encourage the political liberalisation of Soviet society.

21.3 These short-term changes focus primarily on the superpowers, and represent an essential first step towards achieving total nuclear disarmament. While all are important, priority should be given to arresting the arms competition. The Committee recognises that the changes are not easy. They would need to be achieved largely through formal negotiations although there would be some scope for unilateral initiatives by both sides. The basic motivation for change would be mutual self-interest; in the Committee's view a continuing and expanding arms competition does not serve the interests of either superpower. The basic strategy allows some replacement of nuclear forces and capabilities with non-nuclear ones, where this is considered necessary, although we must keep in mind the potential dangers and destructive power of modern conventional weapons and

be careful not to increase the risk of conventional war between the superpowers. It also seeks to establish a base for facilitating eventual total nuclear disarmament by reducing the number, categories and characteristics of nuclear weapons and forces, and move towards a situation where nuclear weapons are maintained only to deter a nuclear attack by another nuclear power.

21.4 The continuation of mutual deterrence, even at reduced levels of armaments, will not eliminate the risk of nuclear war and so does not provide an adequate basis for global peace and security in the longer term. To achieve this, we need to develop a universal commitment to, and an effective means of achieving, total nuclear disarmament, as well as the renunciation of war as an instrument for settling international disputes (any prolonged large-scale war would eventually lead to the reappearance of nuclear weapons). The Committee considers that our long-term goals should be to eliminate all remaining nuclear weapons and to replace deterrence with a doctrine of collective or common security. Given the nature of the task, action to achieve these goals should be pursued concurrently with our attempts to arrest the present arms competition and re-establish mutual deterrence at a reduced level of nuclear armaments.

Short-Term Strategies and Policies

21.5 As noted in the previous chapter, the Committee considers that in the short-term we have little alternative other than to continue with the concept of deterrence. Although the concept represents the only feasible short-term solution to the problem of avoiding nuclear war between the superpowers, there remain the questions of what form it should take and how long we might expect nuclear deterrence to work? The answers to these questions in turn require an assessment of the risks associated with the different ways in which nuclear deterrence can be achieved.

21.6 In Chapter 4 we noted that deterrence aims to convince a potential adversary that he has nothing to gain by using force, or threatening to use it, and that he runs the risk of having to accept serious setbacks in the event of a conflict, setbacks that would decisively weaken his position of power. Confronted by the high costs involved, the adversary is deterred from carrying out his actions. We also saw that nuclear deterrence can be carried out in two ways:

- a. Basic Deterrence which seeks to deter an adversary from launching a nuclear attack by threatening to destroy his cities and major urban-industrial centres in a retaliatory strike. This form of deterrence requires only relatively modest nuclear forces which are capable of surviving an initial attack by the other side. When both sides possess this capability - a

condition known as Mutual Assured Destruction or MAD - then each is deterred from using nuclear weapons against the other. Basic deterrence is directed solely at preventing the use of nuclear weapons. It currently forms the basis of the strategic nuclear policies of the United Kingdom and France, and it is central to the strategy of minimum deterrence, which has been proposed by some for the United States and the Soviet Union.

b. Extended Deterrence which seeks to deter an adversary from attempting to achieve a range of foreign policy or military objectives by threatening to deny him an advantage at whatever level of action he chooses. This form of deterrence incorporates the strategy of basic deterrence but also seeks to deter a range of other potential nuclear and non-nuclear threats through the threatened use of nuclear force. It requires extensive military forces and capabilities and underlies the current strategic nuclear policies of the United States - the so-called 'countervailing' theory of deterrence - and the Soviet Union (even though the latter's policies are not described in terms of deterrence). A full discussion of these policies is contained in Chapter 4.

21.7 Chapter 4 also showed that neither of these forms of nuclear deterrence is totally satisfactory since the weapons remain in place and there is no guarantee that they will not be used in some future military conflict between the superpowers. Furthermore, both forms of deterrence pose certain problems and risks which need to be addressed. Basic deterrence is relatively simple to carry out and does not necessarily entail an arms race. But it may not prevent military conflict from occurring below the level of strategic nuclear arsenals. It also provides little flexibility for decision-makers in the event that deterrence fails. Nor does it provide any scope to terminate a nuclear conflict once it has begun. Extended deterrence overcomes some of these problems, but it is a highly complex means of preventing a full scale military exchange. Its credibility crucially depends on being able to limit a nuclear conflict to something well short of a strategic exchange.

21.8 Much of the deterrence debate is over the relative risks of these two basic approaches. Those who favour extended deterrence argue that it is more credible than basic deterrence, and therefore more likely to be successful in preventing military conflict between the superpowers. They consider that extended deterrence has been instrumental in preventing such conflict to date and that the possibility of deterrence failing in the future is very remote. They acknowledge that there are developments in hand which could 'destabilise' the present

system of deterrence (see for example, paragraph 21.35), but consider the impact of those developments can be satisfactorily managed without altering the underlying approach. Some, the advocates of the so called 'prevailing' theory of deterrence, would like to see the current system of deterrence extended to include the capability to 'fight and win' a nuclear war.

21.9 Critics of extended deterrence, on the other hand, consider that its intrinsic problems outweigh any benefits that may have been obtained by seeking to move away from basic deterrence. They argue that the search for more credible options has led to a proliferation of nuclear weapons and capabilities which are increasing rather than decreasing the risks and consequences of military conflict between the superpowers. In their view, the continued development of counterforce weapons and associated doctrines by both sides are extremely destabilising and need to be either eliminated or strictly controlled. Some critics argue for a return to a system of basic deterrence - in which nuclear weapons are used only to deter a nuclear attack by the other side - and other non-nuclear means are devised to satisfy the remaining foreign and defence policy objectives. Others seek to reduce the size and scope of the existing nuclear arsenals and ensure the overall survivability of nuclear forces of both sides through arms control agreements.

21.10 The Committee accepts that there are advantages and disadvantages to each approach. On balance, however, it considers that the continuing development and increase in nuclear weapons is serving to decrease rather than enhance international security and the world would be far safer if the nuclear weapon states were to reduce and ultimately remove their reliance on nuclear weapons as instruments of national policy. This belief is based on the following underlying features of our nuclear world:

a. nuclear war is unlikely to be limited. Nuclear weapons are not war-fighting weapons. Their destructive power and the size of current nuclear arsenals make nuclear weapons almost impossible to control. Once the nuclear threshold is crossed, we could move towards an all-out (and final) exchange;

b. there would be no winners in a nuclear war. Nuclear war of any kind would amount to an unprecedented catastrophe for humanity and could even result in the extinction of life on earth. While the nuclear threshold for global extinction cannot be calculated, it is probably well below the explosive power of the current nuclear arsenals. The potential consequences of nuclear war including the 'nuclear winter' effect, make it sharply distinguishable from conventional or non-nuclear conflict; and

c. there is currently no defence against nuclear attack. There is no prospect for at least the foreseeable future of either side developing effective defences against current nuclear arsenals although the SDI program is researching the feasibility of such a defence. At present, both superpowers remain vulnerable to a crushing attack by the other and it is in their mutual interests to cooperate to prevent nuclear war occurring. Neither superpower can hope to gain a significant and abiding military advantage over the other. Any attempt to establish overall superiority in military forces or capabilities is both impractical and dangerous.

21.11 The Committee further considers that while nuclear weapons remain deployed, we must pursue policies which minimise the chance of nuclear war while still preserving security and freedom, and facilitate progress towards nuclear disarmament. With this in mind, the Committee considers that our first objective should be to stabilise our present circumstances rather than introduce changes which may exacerbate existing trends and pressures. This would involve implementing a range of measures aimed at arresting the current arms competition and ensuring stability in the strategic balance.

21.12 Our second broad objective should be to begin moving to a position of mutual deterrence at much lower levels of armaments than currently exist. Deterrence at this level should be based on the notion of 'essential equivalence' in which there is an overall balance of forces and capabilities between the superpowers. Planned reductions in nuclear arsenals should be based on a principle of undiminished security for all parties, and enable each side to design and structure its forces to meet its own strategic and national security requirements. They should also seek to raise the nuclear threshold and reduce reliance on nuclear weapons and forces as a means of pursuing political and foreign policy objectives. In the Committee's view we need to return toward a situation where nuclear weapons are maintained only to deter nuclear attack by another nuclear weapon state. This can be achieved in the first instance by using conventional forces and doctrines to replace nuclear ones although we must recognise the potential dangers and destructive power of many modern conventional weapons and so seek to establish conventional deterrence at a balance of forces which is lower and less threatening than currently exists.

21.13 The Committee recognises that the achievement of these basic objectives over a relatively short time frame will not be an easy matter, particularly in view of the continuing poor relations between the superpowers. Nonetheless, the Committee considers that these objectives are possible given sufficient political will and that there are very sound reasons to seek to make these changes sooner rather than later. In the initial

stages, an appropriate organising principle for change, at least as far as the superpowers are concerned, can be mutual self-interest. While United States-Soviet relations will continue to be marked by intense defence competition as long as their government systems remain so different, it is however in their mutual interest to ease this burden or at least transfer it into less dangerous pursuits. To be effective in the long term, any significant agreements to reduce armaments must be grounded in a structure of vastly improved and stable East-West relations and understanding. Thus, concurrent with any progress in arms control must be a gradual normalisation of political relations between the two states. This is probably dependent on some liberalisation of the Soviet system of government.

A. Arresting the spread and continuing competition in nuclear arms

21.14 The period since the end of the Second World War has witnessed a steady growth in the number of nuclear weapons deployed throughout the world. While the SALT accords have halted the growth in the size of the strategic arsenals of the two superpowers, there has been no progress in limiting nuclear warheads that can be delivered by shorter-range systems such as cruise missiles, aircraft and artillery. The number of intermediate and tactical nuclear weapons on both sides has continued to increase and be integrated into the military structures of both sides. There is also a possibility that the superpowers may expand their strategic arsenals. The Reagan Administration has given notice that it may no longer abide by the unratified provisions of the SALT II Treaty. Should the United States decide to break out of the SALT accords, the Soviet Union is certain to follow suit and is more able to do so by virtue of its higher-payload rocket forces. In addition, both superpowers are continuing to investigate new, 'third generation' weapons such as x-ray lasers which are powered by nuclear explosions; low yield, enhanced radiation warheads; and warheads which provide very high levels of electromagnetic pulse (EMP) which could be used to burn out enemy communications.

21.15 Concurrent with the expansion of the nuclear arsenals of the superpowers, there has been a gradual spread of nuclear weapons to other states. There are now five recognised nuclear weapon states - the United States, the Soviet Union, Great Britain, France and the People's Republic of China - and a sixth nation, India, detonated what it called a 'peaceful nuclear explosion' in May 1974. There is also a significant number of countries suspected of either possessing nuclear weapons or being very close to possessing them. These so called 'threshold states' have been alleged to include Israel, South Africa, Pakistan, Brazil, Argentina and Iraq.

21.16 The Committee considers that there is an urgent need for agreements which limit the number and continued development of nuclear weapons. Such agreements would contribute to

arresting the continuing and upward momentum of the arms race and so provide a basis for stabilising our present nuclear circumstances and seeking major reductions in armaments. In the Committee's view, the present arms race could be arrested by pursuing the following basic strategies:

1. reaffirming existing arms control agreements;
2. freezing the production of fissile material;
3. concluding a comprehensive test ban treaty;
4. prohibiting certain destabilising technologies:
 - I prohibiting the further development and deployment of anti-satellite (ASAT) weapons;
 - II prohibiting the unilateral deployment of space-based missile defences;
 - III limiting the deployment of the cruise missile; and
5. strengthening the nuclear non-proliferation regime.

1. Reaffirming existing arms control agreements

21.17 The arms control agreements made to date, while few in number, have nonetheless made some contribution to controlling the nature and scope of the central arms competition as well as slowing the spread of nuclear weapons beyond the superpowers. The most important of these are the SALT treaties, including the anti-ballistic missile (ABM) agreement, and the nuclear non-proliferation treaty (NPT). All these agreements are threatened by continuing advances in technology and the actions of the two superpowers. Continued research and development by both the United States and the Soviet Union into anti-ballistic missile defences and related technologies, together with recent advances in anti-tactical ballistic missiles and large phased-array radars are threatening to circumvent the provisions of the 1972 ABM Treaty. The Reagan Administration has given notice that its future adherence to the SALT II accords will be determined by the Soviet Union's compliance record. And international confidence in the NPT is being eroded by the failure of the superpowers to negotiate arms reductions.

21.18 Until new agreements can be negotiated limiting the spread and further development of the nuclear arsenals of the two superpowers, the Committee considers that it is vitally important that each continues to abide by the provisions of existing agreements and not pursue actions which would undermine confidence in the present arms control regime.

2. Freezing the production of fissile material

21.19 The Committee considers that a first step in arresting the arms race would be to freeze the further production of fissile material for use in nuclear weapons. Such a move would place an overall limit on the size of the nuclear arsenals of the nuclear weapon states without constraining their ability to take advantage of new technologies or restructure their nuclear forces. It would also provide a relatively simple basis for effecting mutual reductions: the two sides would simply agree to further reduce their stockpiles of fissile material.

21.20 Such a proposal should be acceptable to both superpowers since each has adequate (estimated to be more than 600 tons of weapons-grade material) and approximately equal stockpiles of fissile material, and both are currently in favour of deep reductions in nuclear forces. Moreover, both the Soviet Union and the United States have, at different times, expressed support for freezing the production of fissile material.

21.21 A major problem would be in determining an agreed means of verifying compliance with the agreement as well as ensuring that fissile material was not being diverted from the civilian fuel cycle. This could be initially overcome by each side unilaterally agreeing to phase out production over a number of years while negotiating acceptable means of verifying a cut-off agreement. The Committee considers that adequate verification procedures could be achieved by utilising the expertise and resources of the International Atomic Energy Agency, although these may have to be supplemented by other means in order to ensure that there were no significant clandestine production facilities. The verification process would be strengthened if the nuclear powers agreed to place all their civilian nuclear facilities under IAEA safeguards.

3. A comprehensive test ban treaty

21.22 The Committee considers that a treaty banning nuclear tests by all nations in all environments for all time would also serve to limit the number and continued development of nuclear warheads and so place a further overall constraint on the nuclear arms race. A comprehensive test ban treaty would make it more difficult for existing nuclear weapon states to develop nuclear warheads of new designs or weapons utilizing new physical principles. It would make it hard for other nations to acquire a credible nuclear weapons capability or to build up sizeable stocks of nuclear warheads and it would serve to bring pressure upon those countries contemplating entry into the nuclear weapons technology.

21.23 In addition, the signing of a comprehensive test ban treaty is now generally accepted as the best way the superpowers can demonstrate to the world that they take seriously the pledges they made in the 1963 Partial Test Ban Treaty to achieve

a comprehensive test ban, and in the 1968 Nuclear Non-Proliferation Treaty to move towards nuclear disarmament. A CTB would also enhance the acceptability and credibility of the NPT, which is the most important component of the existing non-proliferation regime.

21.24 The Committee considers that these advantages outweigh any potential benefits likely to accrue from continued testing (such as improved safety or smaller - yield weapons). The Committee also considers that a comprehensive test ban treaty would not undermine deterrence or threaten the security interest of either superpower. The Committee is of the view that it is possible to adequately verify such an agreement using existing technologies provided they can be supplemented by agreed procedures for consultation and on-site inspections. The Committee considers that prior to ratifying a test ban treaty, the superpowers should participate in a voluntary moratorium on all nuclear tests, and they should immediately ratify the Partial Test Ban Treaty and the Peaceful Nuclear Explosions Treaty.

4. Prohibiting certain destabilising technologies

21.25 Banning the production of fissile material and the testing of nuclear warheads would not prevent continuing qualitative changes in the arms competition since most advances relate to delivery systems rather than warheads. The Committee accepts that technological change could have a beneficial effect on the strategic balance and so in some circumstances should proceed. Largely for this reason, and doubts over whether it could be effected or verified, the Committee does not favour a complete freeze on the development, production and deployment of all new weapons systems or associated technologies. It is also the case, however, that it is far easier to prevent the extension of the arms race in some new direction than attempt to reverse changes that are allowed to take place. As a general principle, the Committee considers that unless there are clear and unequivocal advantages in adopting new technologies or weapons systems, the arms competition should be constrained within its current boundaries.

21.26 In line with this principle, the Committee considers that every effort should be made to prevent the extension of the arms race into outer space. The continued development by both superpowers of anti-satellite (ASAT) weapons and the pursuit of space-based defences against strategic ballistic missiles could precipitate an unrestrained competition in offensive and defensive weapons on Earth and in space and undermine the limited progress that has been made in arms control to date. There should also be constraints placed on those technical developments which will reduce the capacity for early warning, the collection of strategic intelligence and the verification of arms control agreements. These technologies include 'dual purpose' weapons such as cruise missiles, the various 'stealth' technologies, and certain mobile ICBMs.

21.27 Specific initiatives favoured by the Committee are:

I. Prohibiting the further development and deployment of anti-satellite (ASAT) weapons. At present, the United States and the Soviet Union have only limited ASAT capabilities which do not pose a significant threat to their adversary's satellite systems. Both sides are pursuing research into ASAT related technologies and weapons, however, and in the absence of negotiated constraint, are likely to develop a much more sophisticated and extensive capacity for engaging in anti-satellite warfare. The Committee considers that such a development would not serve the interests of either superpower. The Soviet Union, and especially the United States, are heavily reliant on satellite-based surveillance and command, control and intelligence systems and the presence of weapons in space is likely to reduce rather than enhance the security of the two nations.

II. Prohibiting the unilateral deployment of space-based missile defences. Both the United States and the Soviet Union are engaging in research into weapons systems and associated technologies which could be used to deploy space-based defences against ballistic missile attack. The Committee considers that achievement of effective space-based defences against current arsenals is unlikely. More importantly, the unilateral pursuit of space-based defences by either side is likely to set in motion a chain of events and reactions that would make reductions in nuclear forces very difficult, destabilise the current strategic balance, and undermine the limited progress that has been made in arms control to date. The Committee considers that the two superpowers should negotiate an agreement prohibiting the testing and deployment of space-based missile defences.

The Committee considers that the present system of deterrence could be replaced by one based on the deployment of ground-based defensive systems. But the essential prerequisites of a defence-dominated future are dramatically improved superpower relations and major reductions in current offensive nuclear forces, followed by parallel, or preferably, joint development of defensive systems.

III. Limiting the deployment of the cruise missile. The cruise missile represents a revolutionary departure from existing nuclear-armed missiles in that it is capable of performing similar missions (including the provision of a second-strike capability and various counterforce options at the tactical, theatre and strategic levels) but because of its small size and the fact that it is indistinguishable from conventionally-armed missiles, is very difficult to detect or identify. This makes the verification of any agreement involving cruise missiles very difficult and adds to the risk of nuclear escalation in war since the defending side would not know whether incoming missiles are armed with nuclear or conventional warheads.

Both the United States and the Soviet Union have developed and tested cruise missiles but neither has yet deployed them in large numbers. By the early 1990s, the United States will have converted the whole of its strategic bombers to carry ALCMs and will have produced nearly 4 000 Tomahawk cruise missiles for use on surface ships and submarines. Without some form of negotiated constraint, the Soviet Union will almost certainly follow the American lead.

The Committee considers that there should be a verifiable freeze on the production and further deployment of cruise missiles. At present, this could be achieved by negotiating a ban on flight-testing - which would prevent the Soviet Union from deploying large numbers of cruise missiles - and incorporating current U.S. and the more limited Soviet stocks into a mutual arms reduction agreement.

5. Strengthening the non-proliferation regime

21.28 Preventing the spread of nuclear weapons to non-nuclear weapon states is a critical element in any international effort to arrest the nuclear arms race. The existence of independently controlled nuclear arsenals in the hands of minor nuclear powers and the expanding nuclear capabilities of the so-called 'threshold states' will reduce rather than enhance international security and so ensure a continuing arms build-up throughout the world. A strong international non-proliferation regime will also maintain pressure on the nuclear weapons states to seek significant reductions in their nuclear arsenals.

21.29 Current efforts to restrain the spread of nuclear weapons are based on a loose combination of treaty commitments not to acquire nuclear weapons; informal and voluntary

understandings of nuclear supplier states to limit certain nuclear cooperation with other states; bilateral agreements between some nuclear supplier states and their clients; and a general predisposition against nuclear weapons. The most important element in the non-proliferation regime is the Nuclear Non-Proliferation Treaty (NPT) which commits non-nuclear weapon states to refrain from acquiring nuclear weapons in return for assistance in civil nuclear matters and progress by the existing nuclear powers towards quantitative and qualitative nuclear disarmament. The NPT is widely accepted (it currently has 132 signatories) but has not been signed by a number of countries including France, China, India and most of the 'threshold' states.

21.30 The Committee doubts whether the current proliferation status could be reversed, at least in the short term. It considers, however, that it is important for horizontal proliferation to be contained so that its potentially destabilising effects can be managed with minimum danger. The Committee considers that this requires:

I. strengthening the existing political, economic and technical barriers to acquiring a nuclear weapons-producing capacity or, in the case of the threshold states, to moving up the proliferation ladder;

II. monitoring and controlling the development and introduction of new technologies, such as the breeder reactor and the laser-enrichment process, which could increase the risk and pace of proliferation; and

III. fostering an international strategic and political environment in which individual nations feel more secure and have less incentive to develop and maintain nuclear weapons, or proliferation-prone nuclear technologies.

21.31 The principal means of achieving these objectives is already in place in the form of the present non-proliferation regime. In the Committee's view, the extension of this regime, and its underlying presumptions against further proliferation will depend on:

I. progress in nuclear disarmament by the nuclear powers;

II. stronger and more concerted measures by the nuclear weapons states, and supplier states, to prevent the transfer of nuclear materials and technologies to countries that are not parties to the NPT;

III. adherence by all states to the NPT;

IV. development and promotion of civilian fuel cycles that are restricted to using low-enriched uranium;

V. identification and strengthening of control over reprocessing and enrichment technologies and 'dual-use' items that have application in nuclear and non-nuclear industries;

VI. encouragement of multilateral actions to restrict access to proliferation prone technologies and to punish proliferative action by withholding assistance and considering other economic and political sanctions; and

VII. 'threshold' states adopting IAEA safeguards for their civilian nuclear facilities (whether or not they join the NPT).

21.32 The Committee also considers that the Nuclear Non-Proliferation Treaty could be expanded and strengthened by:

I. requiring the nuclear weapons states to adopt 'full-scale' IAEA safeguards for their civil nuclear industry; and

II. increasing nuclear assistance and options to member states of the NPT which have a need to adopt nuclear energy for peaceful purposes, for example, by multi-nation participation in the operation of sensitive facilities, such as reprocessing plants, provision of turn-key reactors, and return of spent fuel to supplier states.

21.33 Nuclear weapon free zones. The Committee considers that the concept of nuclear free or nuclear weapon free zones constitutes an important means of preventing the spread of nuclear weapons. Such zones normally require states in the region not to manufacture or otherwise acquire nuclear weapons for their own use, and extra-regional states not to deploy such weapons into the zone or use or threaten to use nuclear weapons against zone states. Nuclear weapon free zones are already in place in Latin America and the South Pacific and have been proposed for regions in Africa, Europe, South Asia and the Middle East.

21.34 In seeking to implement this concept, it is important that the initiative comes from, and be supported by, the countries in the proposed zone; that the zone should preserve the regional *status quo* including existing security arrangements; it should be supported by the nuclear weapon

states; and that its provisions should be capable of verification. (However, it is probably true that nuclear weapon free zones have a symbolic value). This should not prevent individual states from prohibiting the development or housing of nuclear weapons in its territory, or from seeking no-use guarantees from the nuclear powers.

B. Minimising the risk of nuclear war occurring by accident or miscalculation

21.35 As long as nuclear weapons continue to exist there is a chance that they may be used in combat. The greatest danger is that a future international crisis ultimately involving the two superpowers may get out of control and lead to military confrontation and conflict. So far the superpowers have been able to ride out even serious crises without great pressure to use nuclear weapons. There has always been time to find out what was happening and to engage in diplomacy to reduce tensions and avoid potential flashpoints. But a number of trends and developments are taking place which threaten to undermine future crisis stability:

I. the miniaturisation of nuclear warheads and the deployment of increasing numbers of tactical nuclear weapons by both superpowers;

II. the continuing development of increasingly accurate intermediate and long-range nuclear weapons which are targeted on, and deployed ever closer to, both sides' retaliatory forces and command centres thus raising fears of a possible first strike and steadily shrinking the warning and response times associated with such a possibility from hours to minutes; and

III. the vulnerability of the strategic communications, command and control (C³) systems of both superpowers to attack and disruption especially with the projected developments in anti-satellite weapons and technologies.

21.36 If war seems imminent, even a partially successful strike against the command and control systems of an opponent may seem an attractive option since it would complicate his ability to coordinate a retaliation. In addition, neither superpower wants to risk being paralysed by riding out an attack and losing communications with its forces. More importantly, they are increasing the chances of an accidental, inadvertent or unauthorised launch of nuclear weapons. The continued deployment of strategic weapons with short flight times is also likely to lead both sides to consider various 'launch on warning' options, in order to ensure reliable retaliation, or to remove certain safety measures during an alert. The vulnerability of national command and control systems has also resulted in both sides

delegating the authority for ordering the use of nuclear weapons to subordinate authorities and certain commanders in the field.

21.37 The Committee would encourage the two superpowers to institute a range of measures which would prevent an international crisis involving the two superpowers from escalating out of control, and in the event of direct military conflict between the armed forces of the United States and the Soviet Union, minimise the likely use of nuclear weapons. In seeking to achieve these objectives, emphasis needs to be given to improving direct communications between the two sides, minimising the vulnerability of nuclear forces to a surprise attack, maximising the time available for consideration and consultation, and improving the survivability and reliability of the means of controlling nuclear forces. In addition to a ban on the further development and deployment of ASAT systems - which would lessen the threat against satellite-based command and control systems - other specific initiatives favoured by the Committee are:

1. Establishment of a tactical nuclear weapon free zone in Europe and Asia and the ultimate elimination of all tactical nuclear weapons. The forward deployment of tactical and short-range nuclear weapons in Europe and along the Sino-Soviet border increases the risk of such weapons being overrun at the beginning of an armed conflict which in turn increases the chance that they may be used rather than lost to the enemy. Such weapons are also likely to be subject to predelegation of authority for use in combat and would be difficult to control once hostilities began. They lower the nuclear threshold and increase the prospect of escalation to an all-out exchange. The majority of battlefield nuclear weapons are presently concentrated in Europe although increasing numbers are beginning to be deployed into other regions. In addition, surface ships of both navies are now being equipped with a range of nuclear and nuclear-capable weapons including cruise missiles, anti-submarine weapons, surface-to-air missiles, and nuclear-armed aircraft.

The Committee recommends the establishment of a tactical nuclear weapon free zone as part of an agreement on mutual and balanced force reductions (MBFR) in Europe and similar negotiations between China and the Soviet Union. Ultimately the Committee would prefer to see all tactical nuclear weapons eliminated from the military arsenals of the nuclear weapon states since these add to the prospect of the escalation of nuclear warfighting. The Committee recognises that in the current political climate, the complete elimination of tactical nuclear weapons could only be achieved slowly. Initially, some

compensating changes in the conventional forces of both sides would probably have to take place concurrently in order to ensure that neither side could exploit a perceived advantage in conventional weapons. It would also have to be done through formal negotiations, and would probably take place in phases. The Committee considers that the current negotiations on Mutual and Balanced Forces Reductions (MBFR) could be extended to include the question of tactical nuclear weapons, although in view of its lack of results to date, it may be better to hold separate, bilateral negotiations perhaps as part of the 'umbrella' talks at Geneva.

II. Pursuit of confidence-building and crisis control measures. The Committee considers that the superpowers could reduce uncertainty in the minds of their adversaries over actions and intentions by facilitating a greater exchange of information on nuclear forces and activities, providing continuous consultation during periods of hostility, and developing explicit rules of engagement for various crisis or conflict scenarios involving the military forces of the two nations. It considers that the present facilities established under the 1963 Hotline and subsequent modernisation Agreements (see Chapter 2) should be maintained but are inadequate. The existing facilities are normally only used in times of emergency and involve communications across a 10 000 km gap. The Committee encourages specific measures such as appropriate meetings between officials on each side; an air incidents agreement similar to the 1972 Incidents at Sea Agreement; an exchange of information about strategic assets or capabilities; advance warning of military activities and observation of exercises by independent observers; and maintenance of contact between the political leadership of each side.

The Committee notes that progress in establishing some of these measures is being made in the multilateral Conference on Confidence and Security Building Measures and Disarmament in Europe (CDE) talks taking place in Stockholm. It supports the continuation of this process and the establishment of similar forums covering other regions where opposing forces directly confront each other.

III. Removal or phasing-out of time-urgent weapons and targets which reduce warning and response times available to decision-makers and provide an incentive for launching a first strike. These include:

1. MIRVed land and sea-based missiles such as the U.S. MX and Soviet SS-18 ICBMs. These could initially be replaced with single-warhead missiles, which would lessen the ability for either side to destroy all of the other's ICBMs in a pre-emptive attack;

2. the U.S. Pershing II and the majority of Soviet SS-20 intermediate range ballistic missiles; and

3. Soviet offshore SSBNs with depressed trajectory missiles that can destroy U.S. military and other targets in a matter of minutes after launch.

C. Establishing mutual deterrence at a reduced level of armaments

21.38 The continuing arms competition between the superpowers and the dictates of their respective counterforce strategies have resulted in the deployment by both sides of tens of thousands of nuclear warheads, and the increasing integration of nuclear and conventional weapons. The two superpowers now have large numbers of nuclear weapons which can be used in strategic, theatre and tactical roles, and they have expanded their operational concepts and doctrines to cover nuclear warfare at the two lower levels. This is in spite of the fact that the leaders of the two superpowers have publicly acknowledged that a nuclear war 'cannot be won and so must never be fought'.

21.39 The Committee considers that the only function of nuclear weapons which cannot be achieved with conventional military forces or by other, non-military means is to discourage other nations which possess such weapons from using them to attack or threaten to attack the basic interests of the state. The Committee further considers that both the United States and the Soviet Union have far more nuclear weapons than they need for achieving nuclear deterrence. Accordingly, it considers that both superpowers should reduce their current nuclear arsenals to much lower levels, and that they should reverse the growing trend towards the 'conventionalisation' of nuclear armaments.

21.40 These changes may require, in the first instance, a closer approximation of the relative strengths in conventional weapons of NATO and the Warsaw Pact, and the development of new doctrines for conventional deterrence in order to offset reductions in, or changes to, existing or projected nuclear capabilities. Ultimately, however, the Committee considers that a balance of conventional forces should also be sought at much lower levels than currently exists.

1. Mutual reductions in strategic nuclear arsenals

21.41 In the Committee's view, any reductions in current force levels need to satisfy a number of broad objectives:

I. they need to be verifiable;

II. they should be significant enough to represent a real change, but without threatening to upset the strategic balance or undermining the security of either superpower. The Committee considers that an overall reduction of 50 per cent of existing forces would be a reasonable initial target;

III. they should maintain parity between the strategic forces of the two sides. Here, the Committee considers that parity should be defined as an overall balance, or a balanced combination of asymmetries, rather than an exact matching of forces;

IV. they need to facilitate progress towards significant nuclear disarmament. This can be best achieved by aiming to simplify the roles, categories and characteristics of the residual nuclear forces; and

V. they should be feasible and achievable over the short and middle term. This is likely to require that the reductions be fair, verifiable and avoid as far as possible arguments over technical detail.

21.42 As noted earlier, the Committee recognises, in terms of *realpolitik*, a successful arms reduction proposal should also allow for a degree of modernisation, enable each side to structure its own forces in accordance with its particular national security requirements and perceptions, and take into account all categories or types of forces which have a bearing on the strategic balance as well as specific issues of concern to the negotiating parties. The later steps in the reduction process may also need to incorporate the nuclear forces of the minor nuclear powers as well as provide protection against the rapid expansion of the nuclear capabilities of a so called 'threshold-state'.

21.43 The Committee has found that none of the proposals for mutual force reductions suggested by the superpowers to date (or indeed many of the alternatives suggested by independent observers or peace groups) satisfy sufficient of these requirements to ensure an agreement. Nonetheless, there are in

the Committee's view, some concepts and elements contained in the different proposals which are worthy of further consideration as part of any future proposal or negotiations. These are:

I. the concept of 'build-down' which provides for concurrent reductions in armaments and some modernisation of the superpowers' arsenals, however this should be within agreed limits;

II. the simultaneous consideration of strategic and intermediate-range nuclear forces, including allied forces;

III. phased reductions rather than a single move since this enables both sides to adjust to each new level and minimises the risk of political or military fall-out;

IV. percentage reductions rather than decreases in absolute numbers of weapons since they have a greater impact on the arms of the side with the larger arsenal and so progressively reduce the more obvious differences between the two sides; and

V. the use of fissile material as a possible currency of reduction. This approach would not depend on problems associated with categorising weapons systems and may be easier to verify and control.

2. Avoiding large-scale conventional war

21.44 While reducing reliance on nuclear weapons and creating a 'firebreak' between conventional and nuclear war will reduce the risk of nuclear conflict, we should also ensure that the prospect of conventional war is not simultaneously increased. A large-scale conventional war may be considerably, less destructive than even a 'limited' nuclear war - and therefore can be considered to be the lesser of the two evils - but if it becomes protracted then it could well see the introduction of nuclear weapons.

21.45 The Committee considers that negotiations for reducing the nuclear arsenals of the two superpowers must proceed in parallel with, or be preceded by, a negotiated agreement for establishing approximate parity in conventional forces between the two alliances and at reduced levels. In view of the complexity of such negotiations, the initial talks should focus on the current Mutual Balanced Force Reduction (MBFR)

negotiations taking place in Vienna. The Committee acknowledges that there has been little progress made in these talks to date, but considers that formal linkage of mutual reductions in nuclear forces to the establishment of a conventional balance in Europe could provide an added incentive to reach agreement.

3. Prohibiting the development, possession and use of chemical weapons

21.46 The present chemical and biological warfare (CBW) disarmament and arms control regime and efforts to extend it are being subjected to pressures which could undermine the regime and lead to the vertical and horizontal proliferation of chemical and biological weapons. These pressures include the modernisation and upgrading of United States' chemical weapons capabilities (including binary weapons) in response to a perceived Soviet build-up; the increasing emphasis of both sides on improving CW protective measures for their armed forces; persistent accusations over alleged usage and transfer of chemical weapons to third parties; and the linking of CBW violations with alleged infractions of other arms control treaties. The principal rationale for the build-up of chemical weapons is to deter the possible use or threatened use of such weapons by another state.

21.47 The Committee considers that, like nuclear weapons, chemical and biological weapons pose a serious and unnecessary threat to the civilian populations of states likely to be involved in this kind of warfare. Unlike the case of nuclear weapons, however, the Committee sees no reason why existing stocks of chemical weapons could not be rapidly disposed of and the current CBW arms control regime be strengthened by an agreement banning all further development, possession and use of such weapons or related products.

21.48 The Committee notes that there has been little progress in the Conference on Disarmament towards establishing a general convention prohibiting the possession and use of chemical weapons. It considers that these negotiations should continue but that, as a matter of urgency, the United States and the Soviet Union should recommence bilateral talks on banning all such weapons.

21.49 The Committee is also concerned over the growing incidence of biological and related research which could give rise to the development of biological weapons. This latter development is currently outlawed by the 1975 Biological Weapons Convention. Modern biological weapons pose a threat to humanity which is probably only second to that posed by nuclear weapons. The Committee considers that an international convention should be established which would prevent research and development aimed at the production of biological weapons.

D. Improving United States-Soviet relations

21.50 Many of the policies and changes that have been proposed will not be possible without a significant improvement in the relations between the superpowers. Such a change will not be easy. The two societies are quite different and cannot be treated on equal grounds or in equal ways. Moreover, the respective national leaderships of the United States and the Soviet Union are subject to a range of domestic and international pressures which serve to limit their freedom of action in determining and announcing public policies. The pressures on the United States leadership are well known. Those influencing Soviet policy are less obvious and they differ in many respects from the kinds of pressures which characterise the 'open', democratic societies of the West. Nonetheless they exist, reflecting the bureaucratic nature of the Soviet system and the range of preferences of its various elites. These encompass differing views on how Soviet objectives are best achieved and embrace both foreign and domestic policies.

21.51 The official relationship between the United States and the Soviet Union has been characterised by a high degree of mutual suspicion and distrust. The two countries have become locked into a confrontationist stance which is being reinforced by the continued development of powerful and threatening strategic arsenals, an increasing emphasis on military force as an instrument of national policy, and an uncompromising political dialogue which has tended to portray the superpower competition in terms appropriate to a new 'cold war'. The prevailing political climate has reduced the arms control process to little more than a propaganda exercise. Alleged violations of arms control agreements are being stressed, and concessions or unilateral measures of constraint are being interpreted as signs of weakness.

21.52 The continuing strained relationship between the United States and the Soviet Union makes it difficult for the two sides to consider measures to ease tensions and reduce armaments. Moreover, the respective governments have tended to become trapped by their rhetoric. Any dramatic attempt to improve relations could now prove unpopular, even costly, in national political terms. Nonetheless, the Committee considers that it is imperative that the current confrontationist and uncompromising stance be ameliorated. In the Committee's view, the establishment of a stable and more harmonious relationship between the superpowers is an essential prerequisite for stopping and reversing the arms race and reducing the risk of nuclear war. As long as relations between the superpowers remain dominated by suspicion, fear and mistrust, neither side will be prepared to countenance significant changes to their armed forces or alternative means of maintaining national and international security in the nuclear age. Moreover, in a steadily worsening political climate, even past achievements in controlling the spread of armaments are in danger of being revoked.

21.53 The Committee notes that relations between the United States and the Soviet Union have improved marginally over the last year or so. Despite this progress, the relationship remains strained and is entirely susceptible to internal political pressures, or the international behaviour of either side, or even statements by the two leaders or their representatives. Given the fragile nature of the current relationship, it is clear that any significant normalisation of relations between the United States and the Soviet Union could not be achieved overnight or in a single step. Rather a broad range of policies and actions are required including:

I. understanding between the superpowers on a political framework for continued global competition. Such an understanding could cover such issues as the principle of strategic equality, respective spheres of influence, rules governing superpower involvement in the Third World, and areas of mutual interest and cooperation (non-proliferation, space exploration, etc);

II. further normalisation of trade relations between the two nations;

III. increased exchange of persons and meetings between political leaders, servicemen, scientists, government officials, educators and others;

IV. expansion of the current range of bilateral scientific, technical and cultural exchange programs; and

V. maintenance and improvement of existing channels of communication such as summit meetings between the political leaders of the two superpowers and the Standing Consultative Committee established as part of the SALT accords.

This broad pattern of activities and contacts would seek to gradually reduce tensions and facilitate greater emphasis on cooperation rather than confrontation.

21.54 With the European experience in mind, another way of improving the international political climate and simultaneously facilitating progress in arms control, would be for an independent nation or group of nations to investigate possible areas of negotiation, consult with appropriate government officials from each superpower and develop proposals which would be satisfactory to both sides.

21.55 As part of any re-evaluation of East-West relations, the Committee considers that the basic strategies that are employed by both the United States and the Soviet Union to

maintain peace and security should also be examined. Nuclear weapons are only the means of threatening the peace; the real danger lies in the policy that drives them. The strategic nuclear policies of both superpowers are detailed in Chapter 4 and are generally described by the term deterrence. Deterrence is based on the notion that each side is kept in check by the other's armaments until through negotiations they agree on disarmament measures which both find satisfactory. Today there is approximate nuclear parity between the superpowers and so in theory they should be able to begin mutual reductions in armaments. What is happening though is that in order to deter its major adversary, each side is pursuing a policy of making its nuclear threat more credible, largely through the development of more 'counterforce' and 'war-fighting' options. This in turn threatens to undermine the strategic balance and leads both superpowers to continue their stockpiling of weapons.

21.56 The concept of deterrence then, as it is currently practised, is based on the premise that the more likely nuclear war seems, the less likely is the risk that it will break out. It is a prescription for the continuing arms race and it incorporates a number of assumptions which serve to emphasize certain patterns of thought and action which may restrict us in dealing with the basic problems presented by the existence of nuclear weapons; in short, deterrence tends as much to contribute to the problem as solve it. Deterrence gives primacy to a situation of confrontation between the United States and the Soviet Union. It ignores the potential impact of other nuclear-weapon states and it seeks to use military force to deter or 'contain' aggression as much as to avoid war. The focus on the threat posed by each side, whether justified or not, serves to narrow the policy's focus and unnecessarily limits the number of options that can be pursued. At the strategic level, for example, the emphasis on containment can result in a tendency to concentrate on the adversary's capabilities, while ignoring or playing down his intentions or interests. Strategic planning thus becomes entirely susceptible to 'worst-case' analysis which finds its expression in the continuing arms race.

21.57 In the longer term, any political accommodation between East and West will depend on a mutual understanding and appreciation of the nature of the adversary's society and its security perspectives. Reaching such an awareness is relatively straightforward in the case of the West but less easy for the Soviet Union and its allies because of the closed nature of their societies. Until much more information is made available by the Soviet Union, and its decision-making processes are subject to much greater public scrutiny, the West will continue to have difficulty understanding Soviet actions and perceptions. The promotion of gradual political change within the Soviet Union itself, especially greater access to information, a measure of real public debate and a more humane attitude towards its populace, could also provide the Soviet leadership with the necessary support to institute the broader political changes needed to address the wide-ranging economic and social problems currently facing the nation.

Multilateral disarmament as a long-term goal

21.58 Nuclear deterrence may reduce the prospect of nuclear war, but it does not eliminate it or the consequences of nuclear war should deterrence fail. The threat posed by nuclear weapons can only be effectively eliminated to the extent that the weapons themselves can be effectively eliminated.

21.59 While total nuclear disarmament is a worthy goal, it is also very difficult to achieve. Disarmament can only take place if individual countries are satisfied that their national security and national sovereignty are not jeopardised. Particular prior conditions include:

I. that no single state or group of states would obtain an advantage over others at any stage either during the disarmament process or following disarmament by, for instance, illicitly stockpiling nuclear weapons or being able to build them quickly; and

II. the elimination of nuclear weapons does not increase the prospect of conventional warfare.

These requirements in turn suggest that the disarmament process would need to provide for the participation of all states in negotiations, and that at least the major weapon states would need to be confident that compliance with the resulting agreements could be verified. The disarmament process would also need to cover non-nuclear weapons and capabilities and it would have to put in place alternative and acceptable measures which would guarantee both national sovereignty and international peace and security, during and after disarmament.

21.60 The Committee considers that there are no such measures currently in prospect. Concepts of world government are generally unacceptable as they would effectively amount to a world dictatorship. The role of the United Nations as an international peace-keeper is currently undermined by the veto powers of the major weapons states. Concepts of common interest or common security, while fine as philosophical ideals, are not easily translated into modes of action. A reliance on a system of non-nuclear deterrence could lead to a further expansion of the arms competition and the development of new generation conventional armaments which may be no less destructive than low-yield tactical nuclear weapons.

21.61 These problems and difficulties do not negate the importance of seeking alternative means of facilitating disarmament. What they suggest is that there is no simple or quick solution to the problem of eliminating the threat of nuclear war. A measure of nuclear disarmament can be achieved through negotiations between the superpowers. Total nuclear disarmament, however, is a vastly more complex undertaking which would require no less than altering our present international political institutions and value structures. Such changes may take many decades to achieve, if they are possible.

21.62 Even though total nuclear disarmament cannot be realised in the near future, it is necessary to make a start towards this objective now. It is better to move towards significant mutual reductions than allow the present escalation in arms to continue. This requires in the first instance that our short-term programs and policies lead toward the goal of eliminating nuclear weapons, not away from it. This means reducing the number, categories and potential uses of nuclear weapons held by both the superpowers and other nuclear weapons states. The Committee considers that the proposals described earlier in this Chapter, if implemented, could fulfil this requirement.

21.63 Equally important is the need to reduce the prospect of major conventional war. In the past, the presence of nuclear weapons has served as a restraint against conventional conflict between nuclear weapon states. The removal of, or a significant reduction in, nuclear weapons could lead to an erosion of this restraint leading ultimately to World War II-type aggression, or to World War I-type unplanned escalation from a small conflict to a big-power conventional war. In the Committee's view, the prospect of conventional war can be reduced by:

I. reducing the size of conventional forces held by all states and eliminating long-range offensive weapons that can be used to threaten other states;

II. halting big-power military involvement in the Third World. This includes both direct military intervention in regional disputes and the supply of arms, especially advanced weapons systems, to developing countries;

III. working to reduce the basic political, economic and social causes of tension and conflict throughout the world. This involves the support for the expansion of democracy and associated civil rights and liberties in all countries;

IV. working to improve and strengthen the United Nations and other international institutions that safeguard the rights of individual nations; and

V. working to advance international understanding and cooperation through increased trade, study and exchange of people.

However, it is the Committee's view that the existence of dictatorships of the so-called left and right, largely non-responsive to their own populations, is the most likely cause of major wars.

21.64 The Committee sees the need to limit trade in conventional weapons as particularly important, especially between advanced industrialised nations and those of the developing world. As detailed in Chapter 7 the transfer of conventional weapons to the Third World has continued to expand both in quantitative and qualitative terms. While the United States and the Soviet Union remain the largest exporters of arms, the number of arms suppliers is increasing. The major arms exporting countries are France, the United Kingdom, Italy, West Germany, China, Czechoslovakia, Spain, Sweden, Switzerland, Israel, North Korea, Singapore, East Germany, Holland, Belgium, India and South Africa. In addition, many Third World countries are slowly increasing their share of total arms exports and now collectively account for nearly four per cent of Third World imports.

21.65 The continued proliferation of conventional weapons and weapons-producing capabilities increases global and regional tensions and undermines stability as nations arm to defend themselves against potential aggressors. They thus contribute to an increasing risk of superpower conflict as well as causing enormous destruction and suffering through continued low-level military conflicts, and the diversion of a disproportionate amount of resources away from other areas of economic and social need. The Committee recommends that the United States and the Soviet Union should resume their Conventional Arms Transfer (CAT) talks and that the talks should be broadened to include other supplier states. It also supports the recommendation of the Palme Commission that 'supplier states should open talks aimed at establishing criteria by which they could regulate arms transfers on an equitable basis'. These criteria should include the principles that there should be no significant increase in the quantity of weapons transferred into a region and no first introduction of advanced weapon systems which would create new or significantly higher levels of combat capability within the region.

21.66 A third important area of activity is to develop in all countries and among all peoples a belief in the need for disarmament and a commitment by all nations to achieve it. Belief and trust are crucial, for without confidence in the outcome of the disarmament process, some nations will insist on keeping their own clandestine weapons in order to prevent being blackmailed. Fear of this possibility will lead others to do the same and very soon the world will experience a new arms race.

21.67 A crucial element in developing a consensus for disarmament is really to understand the nature and scope of the threat posed by the existence of nuclear weapons and by modern war generally. The topic is complex and information about it is often contradictory, fragmented, misleading or one-sided. Another step is to convert in each nuclear-armed country an aroused public consciousness into political action, although this is almost impossible in closed societies such as the Soviet Union. It is the political leaders in office who may decide whether the possibility of nuclear war will become a likelihood, and it is

they who have the authority to arrest and change our developing circumstances. As the Committee stated above, public opinion has less impact on the Soviet leadership than it does on the United States and its allies. Nonetheless, the Soviet Union is not completely immune from the force of international opinion. Moreover, the current Soviet leadership has given some indications that it would be prepared to enter into a more constructive political and arms control dialogue with the United States. In the Committee's own view, such an opportunity should not be wasted.

21.68 Over recent years, there has been growing awareness of the need for increased public participation in the disarmament debate and of the important role of public opinion in generating the necessary political will to recognise and move towards the goal of total nuclear disarmament. This broad recognition was reflected in the Final Document of the United Nations 1978 Special Session on Disarmament which stated in part that:

It is essential that not only Governments but also the peoples of the world recognise and understand the dangers in the present situation. In order that an international conscience may develop and that world public opinion may exercise a positive influence, the United Nations should increase the dissemination of information on the armaments race and disarmament with the full cooperation of Member States.

21.69 The Final Document also listed a number of specific measures to help 'mobilize public opinion on behalf of disarmament'. These measures are worth repeating here. They include:

- I. the preparation and distribution by governmental and non-governmental information organs of printed and audio-visual material on disarmament efforts and the dangers of the arms race;
- II. the proclaiming of a Disarmament Week each year starting on October 24 to foster the objectives of disarmament;
- III. intensification of the activities of the UN Center for Disarmament (now the Department of Disarmament Affairs) and of UNESCO, to facilitate research and publications on disarmament, and of UNESCO's program aimed at the development of disarmament education as a distinct field of study;
- IV. increased participation of non-governmental organizations in disseminating information, and closer liaison between them and the United Nations;

V. the ensuring by Member States of a better flow of accurate information on disarmament and the dangers of the arms race;

VI. the development by governments and non-governmental organizations of programs of education for disarmament and peace studies at all levels;

VII. the establishment by the United Nations of a program of disarmament fellowships; and

VIII. increased cooperation by the Center for Disarmament with non-governmental organizations and research institutes, and also with UN specialized agencies and other institutions to promote studies and information on disarmament.

The Committee sees value in these initiatives being continued, but notes that the number of states which could be called democratic amounts to a minority of UN members.

21.70 One of the most difficult obstacles to achieving consensus on, or progress towards disarmament, is the contradiction between 'national security' and the long-range benefits of a world free of military conflict. States have for a long time sought to maintain national security through the possession of armed forces. In view of the lessons of history, they will not readily abandon the right to arm themselves to protect their interests. Moreover, many national leaders or aspiring leaders continue to view military forces as a legitimate means of pursuing their interests or national objectives.

21.71 One approach that could do this is to replace the present system of deterrence by one based solely on the deployment of defensive weapon systems, including defences against ballistic missile attack. Unlike President Reagan's SDI proposal, the ballistic missile defences would be restricted to ground-based systems which would be put in place only after the superpowers (and other nuclear weapon states) had abolished their nuclear stockpiles (the specific transition period and process would need to be determined by negotiation between the nuclear weapon states). Research into missile defences could occur at the same time as reductions in nuclear weapons but should remain within the current or suitably amended provisions of the 1972 ABM Agreement. In an endeavour to lessen the chances of misunderstanding or the misuse of defensive technologies, the Committee considers that the two superpowers should cooperate in the ongoing research, perhaps under the auspices of a United Nations' organisation established for that purpose.

21.72 The deployment of non-nuclear defences in this way would reduce the potential consequences of one side cheating on a total abolition agreement, or of a nation using a small number of hidden weapons to blackmail or coerce an opponent. Defences

capable of this kind of task are not beyond the realm of technical possibility and would be able to be improved over time. They would thus reduce the immediacy of the nuclear threat as well as provide an important base on which to build a doctrine of common security.

CHAPTER 22

SUMMARY OF COMMITTEE CONCLUSIONS
AND RECOMMENDATIONS

Introduction (Chapter 1)

22.1 The Committee wishes to make two preliminary observations which must be kept in mind when reading the Report. First, the information described has been derived from submissions and public sources. As a result, there tends to be more detail on, and scrutiny of the United States and its policies than of the Soviet Union. The Committee would prefer otherwise but has been constrained by the closed nature of Soviet society and its penchant for secrecy. Democracies are relatively open societies and especially in the U.S. the Executive has to justify all military expenditure to Congress and the public. In the closed society of the Soviet Union no such public scrutiny or discussion takes place. Thus the question of verification becomes important and Soviet propaganda and disinformation is much more effective in Western societies where public opinion can actually change government policies [para. 1.15].

22.2 The Committee has found that little is known about the defence policies of the Soviet Union beyond the information released by various Western intelligence agencies or published in specialised academic journals. The Committee suggests that a future reference of this Committee should be to examine Soviet foreign policy and defence capabilities, particularly with respect to Australia's own region of interest [para. 1.16].

22.3 A second, and related point is that the Report attempts to take, as far as possible, an objective approach towards the problem of how to ensure peace and security in the nuclear age. The Committee recognises that it can be argued that it is not possible to discuss the threat of nuclear war and the methods of preventing it, without pointing out the vast difference between the member countries of the Warsaw Pact and Western societies. The objective approach taken in this Report is justified on the grounds that the need to reduce or eliminate the risk of nuclear war, particularly war between the superpowers, transcends ideological or political preference or predispositions. The Committee recognises that Australia is part of a community of nations that shares certain values and ideals and that we should be prepared to defend those values. Security against nuclear destruction, however, cannot be obtained unilaterally. It requires instead cooperation to eliminate nuclear weapons or at least to institute measures that minimise their possible use [para. 1.17].

What Should Be Done (Chapter 21)

22.4 The Committee considers that the continuing development and increase in nuclear weapons is serving to decrease rather than enhance international security and the world would be far safer if the nuclear weapon states were to reduce and ultimately remove their reliance on nuclear weapons as instruments of national policy. This belief is based on the following underlying features of our nuclear world.

- I. Nuclear war is unlikely to be limited. Nuclear weapons are not war-fighting weapons. Their destructive power and the size of current nuclear arsenals make nuclear weapons almost impossible to control. Once the nuclear threshold is crossed, we could move towards an all-out (and final) exchange;
- II. there would be no winners in a nuclear war. Nuclear war of any kind would amount to an unprecedented catastrophe for humanity and could even result in the extinction of life on earth. While the nuclear threshold for global extinction cannot be calculated, it is probably well below the explosive power of the current nuclear arsenals. The potential consequences of nuclear war including the 'nuclear winter' effect make it sharply distinguishable from conventional or non-nuclear conflict; and
- III. there is currently no defence against nuclear attack. There is no prospect for at least the foreseeable future of either side developing effective defences against current nuclear arsenals. Both superpowers therefore remain vulnerable to a crushing attack by the other and it is in their mutual interests to cooperate to prevent nuclear war occurring. Neither superpower can hope to gain a significant and abiding military advantage over the other. Any attempt to establish overall superiority in military forces or capabilities is both impractical and dangerous [para. 21.10].

Short-Term Strategies and Policies

22.5 The Committee considers that in the short-term, we have little alternative other than to continue with the concept of deterrence as the basic means of avoiding nuclear war.

22.6 In the Committee's view, our immediate goal should be to stabilise our current nuclear circumstance and begin moving towards a position of mutual deterrence at much lower levels of nuclear armaments than currently exists. This would involve pursuing policies which seek to:

- a. arrest the spread and continuing competition in nuclear arms by:

Recommendations

- R1. reaffirming existing arms control agreements [paras. 21.17-18];

- R2. freezing the further production of fissile material for use in nuclear weapons [paras. 21.19-21];
- R3. concluding a comprehensive test ban treaty [paras. 21.22-24];
- R4. prohibiting certain destabilising technologies including [paras. 21.25-27]:
- I. the further development and deployment of anti-satellite (ASAT) weapons;
 - II. the unilateral deployment of space-based missile defences;
 - III. the deployment of the cruise missile; and
- R5. strengthening the nuclear non-proliferation regime [paras. 21.28-34].
- b. Minimise the risk of nuclear war occurring by accident or miscalculation. The Committee would encourage the superpowers to institute a range of measures which would seek to prevent an international crisis involving the two superpowers from escalating out of control, and in the event of direct military conflict between the armed forces of the United States and the Soviet Union, minimise the likely use of nuclear weapons. Specific initiatives favoured by the Committee are:
- R6. a ban on the further development and deployment of anti-satellite (ASAT) systems [para. 21.37];
- R7. establishment of a tactical nuclear weapon free zone in Europe and Asia and the ultimate elimination of all tactical nuclear weapons [para. 21.37];
- R8. agreement on a range of specific confidence-building and crisis control measures [para. 21.37];
- R9. removal or phasing-out of time-urgent weapons and targets [para. 21.37];
- c. Establish mutual deterrence at a reduced level of armaments. The Committee considers that the only function of nuclear weapons which cannot be achieved with conventional forces or by other, non-military means is to discourage other nations which possess such weapons from using them to attack or threaten to attack the basic interests of

the state. The Committee further considers that both the United States and the Soviet Union have far more nuclear weapons than they need for achieving nuclear deterrence.

RI0. The Committee considers that both superpowers should reduce their current nuclear arsenals to much lower levels, and that they should reverse the growing trend towards the 'conventionalisation' of nuclear armaments [para. 21.39].

These changes may require, in the first instance, a closer approximation of the relative strengths in conventional weapons between NATO and Warsaw Pact forces, and the development of new doctrines for conventional deterrence in order to offset reductions in, or changes to, existing or projected nuclear capabilities. Ultimately, however, the Committee considers that a balance of conventional forces should also be sought at much lower levels than currently exists [para. 21.40].

In the Committee's view any reductions in current force levels need to satisfy the following:

- they must be verifiable;
- they should be significant enough to represent a real change;
- they should maintain overall parity between the strategic forces of the two sides;
- they need to facilitate progress towards significant nuclear disarmament; and
- they should be feasible and achievable over the short and middle term [para. 21.41].

A successful arms reduction proposal should also allow for a degree of modernisation, enable each side to structure its own forces in accordance with its particular national security requirements and perceptions, and take into account all categories or types of forces which have a bearing on the strategic balance as well as specific issues of concern to the negotiating parties [para. 21.42].

The Committee has found that none of the proposals for mutual force reductions suggested to date satisfy sufficient of these requirements to ensure an agreement.

Nonetheless, there are in the Committee's view, some concepts and elements contained in the different proposals which are worthy of further consideration as part of any future proposal or negotiations. These are (1) the concept of 'build-down' which provides for concurrent reductions in armaments and some modernisation of the superpowers' arsenals; (2) the simultaneous consideration of strategic and intermediate-range nuclear forces including allied forces; (3) phased reductions; (4) percentage reductions; and (5) the use of fissile material as a possible currency of reduction [para. 21.43].

d. Improve United States - Soviet relations. The Committee considers that many of the policies and changes described above will not be possible without a significant improvement in relations between the superpowers. The continuing arms competition is placing an ever-increasing burden on the economies of the two sides and exacerbating regional inequalities and tensions which could ultimately involve the superpowers. In the Committee's view it is important to continue to highlight the differences between the two societies and to resist or condemn in unequivocal terms acts of aggression or the violation of human rights by either side. It is important, however, not to make negotiations seeking to limit or reduce nuclear arms contingent on an opponent's general international behaviour [paras. 21.50-51].

The Committee considers that any significant normalisation of relations between the United States and the Soviet Union could not be achieved overnight or in a single step. Rather a broad range of policies and actions are required including:

- understanding between the superpowers on a political framework for continued global competition;
- further normalisation of trade relations between the two nations;
- increased exchange of persons and meetings between political leaders, servicemen, scientists, government officials, educators and others;
- expansion of the current range of bilateral scientific, technical and cultural exchange programs; and
- maintenance and improvement of existing channels of communication [para. 21.52].

Multilateral Disarmament as a Long-Term Goal

22.7 The greatest danger facing mankind today is the threat of nuclear war. We will only be safe from this threat when nuclear weapons have been abolished. Our overall objective therefore should be to eliminate all existing nuclear weapons, set in place a means of preventing their reappearance at some time in the future, and replace deterrence with a doctrine of collective or common security.

22.8 The Committee notes that while total nuclear disarmament is a worthy goal, it is also very difficult to achieve. The problems and difficulties of achieving total nuclear disarmament do not negate the importance of seeking a means of achieving it. Even though total nuclear disarmament cannot be realised in the near future, it is necessary to make a start towards this objective now.

22.9 In the Committee's view, actions to facilitate progress towards total nuclear disarmament should involve:

- a. completion of the short term objectives as recommended above;
- b. establishing a mechanism for facilitating total nuclear disarmament. Initially this would mean seeking significant reductions in nuclear arsenals and reducing the different types of nuclear weapons and forces. Ultimately, we should aim to:
 - R11. replace the present system of deterrence by one based solely on the deployment of defensive weapons systems, including defences against ballistic missile attack. Unlike President Reagan's SDI proposal, the ballistic missile defences would be restricted to ground-based systems which would be put in place only after the superpowers (and other nuclear weapon states) had abolished their nuclear stockpiles [Para. 21.70].
- c. Developing in all countries and among all peoples a belief in the need for disarmament and a commitment by all nations to achieve it. A crucial element in developing such a consensus is really to understand the nature and scope of the threat posed by the existence of nuclear weapons and by modern war generally; and
- d. transforming the focus of international relations from military confrontation to cooperation and non-military competition. This involves improving both the existing superpower relations and the social and economic condition of all nations.

22.10 Equally important is the need to reduce the prospect of major conventional war. In the past, the presence of nuclear weapons has served as a restraint against conventional conflict between nuclear weapons states. The removal of, or a significant reduction in, nuclear weapons could lead to an erosion of this restraint leading ultimately to World War II-type aggression, or to World War I-type unplanned escalation from a small conflict to a big power conventional war. In the Committee's view, this prospect can be reduced by:

- R12. reducing the size of conventional forces held by all states and eliminating long-range offensive weapons that can be used to threaten other states;
- R13. halting big-power military involvement in the Third World. This includes both direct military intervention in regional disputes and the supply of arms, especially advanced weapons systems, to developing countries;
- R14. working to reduce the basic political, economic and social causes of tension and conflict. This involves the support for the expansion of democracy and associated civil rights and liberties in all countries;
- R15. working to improve and strengthen the United Nations and other international institutions; and
- R16. working to advance international understanding and cooperation. This should be done through increased trade, study and exchange of people [para. 21.62].

22.11 The Committee sees the need to limit trade in conventional weapons as particularly important, especially between advanced industrialised nations and those of the developing world. The continued proliferation of conventional weapons and weapons-producing capabilities increases global and regional tensions and undermines stability as nations arm to defend themselves against potential aggressors. They thus contribute to an increasing risk of superpower conflict as well as causing enormous destruction and suffering through continued low-level military conflicts, and the diversion of a disproportionate amount of resources away from other areas of economic and social need.

- R17. The Committee recommends that the United States and the Soviet Union should resume their Conventional Arms Transfer (CAT) talks and that the talks should be broadened to include other supplier states [para. 21.64].

It also supports the recommendation of the Palme Commission that 'supplier states should open talks aimed at establishing criteria by which they could regulate arms transfers on an equitable basis'. These criteria should include the principles that there should be no significant increase in the quantity of weapons transferred into a region and no first introduction of advanced weapon systems which would create new or significantly higher levels of combat capability within the region.

Australia's Role in Disarmament and Arms Control (Chapters 9 and 10)

22.12 Australia's approach to disarmament and arms control and the maintenance of international security and peace is characterised by a number of factors:

- . its broad scope. Australia has policies on a broad range of arms-related issues, covering both international and regional concerns, and is actively pursuing these within different forums;

- . its basic orientation. Australia's policies are largely aligned with those of other Western and pro-Western nations, in particular the United States. The most fundamental alignment is through the continuing support for, and contributions to the notion of deterrence;

- . its emphasis on diplomacy. While Australia makes a number of practical contributions to the maintenance of deterrence or the provision of arms control, its principal emphasis is on multilateral and bilateral negotiations; and

- . its emphasis on arms control. While Australia describes its policies in terms of disarmament and arms control, the primary thrust of its policies is on regulating the arms competition in order to maintain stable deterrence and so minimise the risk of nuclear conflict [para. 9.45].

22.13 The submissions to the inquiry were appreciative of the Government's efforts to achieve disarmament and arms control at both the international and regional level. They were supportive of many of the policies of successive Australian governments, particularly those relating to nuclear testing, chemical weapons control and limiting the extension of the arms race into outer space, all of which are being pursued in the Conference on Disarmament in Geneva. It was generally recognised that Australia could only exert a small amount of influence on the superpowers but that we are probably doing more than most equivalent nations in seeking to enhance global peace and security. The criticisms of, and comments on, Australia's role in disarmament and arms control covered (1) the efficacy of the current system of deterrence and Australia's role in that

system; (2) whether Australia should place more emphasis on achieving disarmament rather than arms control; (3) whether Australia should pursue a more independent stand on disarmament and arms control; and (4) whether the Australian community is sufficiently informed or aware of nuclear issues generally and of their specific consequences for Australia [paras. 10.2-3].

Australia and Deterrence

22.14 The Committee notes that opinion is divided over whether deterrence, especially the way it is currently practised, is the best way of preventing nuclear war at least in the short term. Significantly, there appears to be broad agreement that deterrence, particularly a system of deterrence which is based on the deployment of thousands of nuclear warheads, does not provide a satisfactory basis for continued stability and peace in the longer term. There is also broad agreement that the number of weapons currently in existence has to be reduced and that our ultimate objective must be the complete elimination of all nuclear weapons [paras. 10.23; 10.26].

22.15 The Committee further notes that there appears to be some disagreement within the Government over how deterrence is and should be carried out. The Minister for Foreign Affairs and his Department seem to favour a system of deterrence based on assured destruction, whereas evidence presented to the Committee by the Department of Defence suggested that they support a system of deterrence which is close to the present United States' 'countervailing theory' of deterrence, which includes 'counterforce' capabilities and doctrines.

22.16 Given the importance that is officially attached to deterrence in Australia and its use to support a range of defence and foreign policies, the Committee considers that Australia should have a single and consistent approach towards deterrence and how it should be practised.

R18. The Committee recommends that the Government conduct a review into the present system of nuclear deterrence with particular emphasis on:

- a. its continued stability in light of evolving doctrinal and technological changes;
- b. whether it is serving to increase or decrease the risk of military conflict between the superpowers; and
- c. whether it provides a suitable basis for eventually achieving total nuclear disarmament, or at least at much lower levels of nuclear arms.

The review and its findings should be made public and should recommend any necessary changes in Australia's own policies and practices [para. 10.32].

22.17 The Committee considers however that the concept of deterrence is probably the only viable means of minimising the risk of military conflict between nuclear-armed states under present circumstances. Any attempt to do away with deterrence in the short term - either through unilateral nuclear disarmament or unimpeded competition - is likely to increase the risk of nuclear war between the superpowers. The Committee has some reservations about the continued stability of the present system based on the 'countervailing' or extended theory of deterrence, and its suitability in eventually providing for total nuclear disarmament, particularly if the progress in arms control continues to be limited. As a minimum, it is considered that stable deterrence has to be established at a much lower level of nuclear armaments than exists today and in a way which does not make possible a successful first strike against either superpower [para. 10.33].

Disarmament or Arms Control?

22.18 The Committee notes that the Government, and many in the peace movement, tend to list all current or proposed policies and initiatives under the general title of 'arms control and disarmament' even though a number of these - such as the comprehensive test ban - do not specifically seek to reduce armaments. While the Committee accepts that there is an overlap between the meanings of disarmament and arms control, and that the two terms are used rather loosely in both official and private writings (including this report), it is also the case that there are significant differences between the technical meanings of the terms which may be obscured by grouping them together. It may be helpful to keep in mind the following technical definitions of nuclear disarmament and arms control:

- a. nuclear disarmament is concerned with reducing or completely eliminating nuclear weapons and the political and strategic conditions that would facilitate their removal; and
- b. arms control comprises a wide range of measures aimed at regulating, halting or reversing the spread of nuclear arms and seeking to prevent their use in a military conflict [para. 10.34].

22.19 The Committee found that Australia's past and current contributions to disarmament as opposed to arms control have been limited largely to support for United Nations' initiatives such as the UN study group into concepts of security - of which Australia is a member - the World Disarmament Campaign and taking a leading role in the 1978 UN Special Session on Disarmament. There appears to be only minimal awareness within the community of these initiatives.

- R19. The Committee recommends that greater publicity be given to Australia's present efforts to achieve global nuclear disarmament [para. 10.50].

22.20 The Committee acknowledges the importance of continuing arms control efforts and Australia's significant contributions in this area. It considers, however, that Australia should give greater emphasis than it appears to do at present to examining questions and issues relating to disarmament. It should do this because of the clear failure of the arms control process to significantly arrest let alone reverse the arms race, or to reduce the destruction likely to occur in the event of war between the superpowers. It would also seem reasonable to expect that, given the importance it attaches to disarmament, the Government should have a broad set of principles and a program of action for achieving disarmament which would, in part, determine Australia's policies and priorities on deterrence and arms control [para. 10.52].

- R20. The Committee whilst supporting verifiable bilateral or multilateral disarmament, can see benefits in the use of verifiable unilateral initiatives to improve relations between the superpowers [para. 10.56].

This could provide a means of breaking the current impasse in arms control negotiations. The Committee considers that there is scope for both superpowers to implement verifiable unilateral initiatives in areas of current concern to Australia: nuclear testing, anti-satellite warfare, chemical weapons and on-site inspections.

- R21. The Committee recommends that the Government identify appropriate unilateral moves that could be made by each superpower and exert political pressure on them to undertake such moves [para. 10.57].

22.21 In this context, the Committee notes the Government's decision to support the recent freeze resolution in the United Nations General Assembly.

- R22. The Committee supports the concept of a verifiable nuclear freeze as a means of curbing the development and potentially destabilising effects of new weapons systems and technologies [para. 10.58].

The eventual proposal must take into account the objections that have been raised against a freeze proposal by the superpowers, such as problems associated with verification and the potential benefits of continued modernisation of some weapons systems, and subject to the freeze not entailing a continuing advantage for one side. This may be best achieved by implementing a phased approach or a series of partial freezes rather than an across-the-board package. It is also important to keep in mind that the freeze needs to be considered in concert with other initiatives or proposals which would seek to provide for stable deterrence at much lower levels of armaments.

Is there a need for a more independent stand on disarmament and arms control?

22.22 Many submissions to the inquiry pointed to what they saw as a basic and growing contradiction between Australia's efforts to advance the cause of disarmament and arms control and its continued support for evolving U.S. strategic nuclear doctrines and policies. A number of means of overcoming this perceived weakness were suggested ranging from increased diplomatic activity to withdrawal from our current alliance commitments.

22.23 Some of the specific criticisms raised are discussed in the section on Regional Issues. The Committee considers that a number of the proposals are unrealistic in both political and strategic terms. Unilateral disarmament by Australia, for example, is unlikely to be accepted by the majority of the Australian population and would serve to harm rather than improve our national security interests.

22.24 The Committee is concerned that there is a tendency within some sections of the peace movement in particular to ignore the Soviet Union's role in the arms competition. While most submissions were critical of the nuclear arsenals and strategies of both superpowers there was a tendency to focus on how Australia could influence the United States to do more to facilitate disarmament and arms control. The Committee considers that it is important that Australia seek to develop ways and means of inducing both superpowers to reverse the arms race and reduce the risks of nuclear conflict.

R23. The Committee confirms the view held by successive Australian governments and the general findings and conclusions of earlier Committee reports that it is in Australia's interests to continue its alliance relationship with the United States [para. 10.83].

Clearly, withdrawal would weaken the Western Alliance. Further, it would not be accepted by the majority of the Australian electorate and would have a significant destabilising effect on our region with potentially serious consequences for Australia's own security.

22.25 The Committee acknowledges that Australia's security, and that of our region, is crucially dependent on developments in the global balance of power.

22.26 The Committee considers that as a longstanding ally of the United States, Australia should stress the superpowers' common interests in: (1) achieving disarmament and arms control; (2) reducing political and economic tensions throughout the world; and (3) moving away from the notion of stability based on armaments.

R24. The Committee considers that Australia should join with other like-minded states to present a concerted view on issues of common concern and to develop means of improving the relationships between the superpowers [para. 10.86].

Community Liaison and the Provision of Information

22.27 The Committee considers that in spite of some recent improvements, liaison between the Government and the community and the exchange of information and views on disarmament and arms control in Australia are insufficient and warrant considerable improvement in light of the seriousness of the basic issues and the widespread concern over them.

22.28 The Committee considers that the Government needs to do more to inform the public at large of disarmament and arms control issues and of the rationale for the Government's current policies and approaches. In this regard, it recommends that, as a minimum, the Government:

R25. provide a more widespread dissemination of significant and factual reports and papers on disarmament and arms control;

R26. develop detailed position papers on its own policies covering their background, the views of other governments and Australia's own position and rationale, and update these documents on a regular basis; and

R27. publish an annual assessment of the global situation covering the range of topics and issues addressed in this report, with particular emphasis on regional developments and Australia's role [para. 10.97].

A Ministry for Disarmament?

22.29 While some submissions suggested the establishment of a separate Ministry for Disarmament, the Committee rejects this proposal as the matters involved are an integral part of the responsibilities of the Minister for Foreign Affairs. The Committee acknowledges the significant upgrading of facilities and resources made available by the Government to pursue Australia's disarmament and arms control policies. Nevertheless, the Committee still considers that the resources for the tasks involved and envisaged could be enhanced.

R28. The Committee recommends that the Government establish either a separate body similar to ONA or an office within the Department of Foreign Affairs similar to ADAB which would be responsible to the Minister for Foreign Affairs

and which would be required to develop and oversee Australia's disarmament and arms control policies, provide specialist advice to the Government on issues relating to disarmament and arms control, and provide liaison with the Australian community [para. 10.103].

Strategic Defences and the ABM Treaty (Chapter 11)

The Committee considers that:

- a. The continued observance of the provisions of the 1972 ABM Treaty is important for the maintenance of a system of stable deterrence based on mutual vulnerability of the two superpowers to a retaliatory nuclear attack;
- b. Despite United States' concerns to the contrary the evidence available to the Committee does not support the view that the Soviet Union is actively seeking to abandon the ABM Treaty. Given current deficiencies in Soviet ABM defences, U.S. technical capabilities and the likely cost of a defensive arms race the Soviet Union stands to lose more by such an action than it would gain;
- c. the Soviet Union is nonetheless improving its ABM capabilities and it has specifically violated some of the provisions of the ABM Treaty. Further development of these capabilities will critically depend on United States' actions, particularly those relating to SDI;
- d. the 1972 ABM Treaty is under threat from a range of Soviet and U.S. weapons development activities which circumvent, or threaten to circumvent the Treaty over the longer term. These include: antisatellite weapons, anti-tactical ballistic missiles and large phased-array radars;
- e. the threats to the current ABM regime need to be rectified. The most appropriate way to avoid further erosion of the ABM Treaty is through negotiation at the Standing Consultative Commission (SCC) which was established under the terms of the Treaty to resolve compliance and implementation issues; and
- f. Should both superpowers develop the capacity to simultaneously deploy extensive and effective defences against ballistic missile attack then the underlying strategic assumptions of the ABM Treaty would no longer apply [para. 11.35].

The Strategic Defense Initiative (SDI) (Chapter 12)

22.30 Current descriptions of SDI research objectives now encompass two separate goals which need to be clearly and carefully distinguished. The first is the original aim of replacing the threat of retaliation as the basis of the U.S. nuclear deterrence strategy with a new strategy based on defence. The second is the more limited deployment of strategic defences in support of the current system of deterrence [para. 12.29].

Non-Nuclear Defence

22.31 A defence dominated world is likely to be as complex as an offence oriented one. It would be subjected to similar pressures and constraints which, under certain circumstances, could add to the risk of military conflict, and so will continue to require cooperation between the superpowers. Despite these problems, the concept of a system of international security based on non-nuclear defences has much to commend it. A world in which competing adversaries have only defensive weapons in place would be far preferable to the present system in which the security of both superpowers rests on the threat to annihilate millions of people throughout the world. It may also provide the only practicable means of achieving total nuclear disarmament. Given that non-nuclear defence is a worthy objective, is the current SDI proposal a viable and satisfactory means of achieving it? [para. 12.32].

22.32 The Committee considers that the technical limitations associated with the SDI program make the prospect of a perfect or near perfect defence against current arsenals very unlikely. It is accepted that, in the future, new technologies could be developed which could render ballistic missiles 'impotent and obsolete'. But the major, and probably insurmountable, problem will still be to fashion this range of diverse technologies into a workable, deployable and survivable defensive system. While the prospect of developing effective defences against current arsenals is remote, it could be improved if the numbers and variety of nuclear weapons and delivery systems possessed by the United States and the Soviet Union were substantially reduced [para. 12.34].

22.33 In the absence of negotiated restraints the continuation of the SDI program will stimulate a renewed arms race between the two superpowers which will involve both defensive and offensive systems and will extend into outer space. The extension of the arms competition in this way is likely given the nature and intensity of the political rivalry between the two nations, which will dictate that any significant change in the strategic forces of one side will lead to a corresponding change by the other [para. 12.36].

22.34 The Committee is also concerned that the SDI research program may impede achievement in arms control. While it recognises the Reagan Administration's statement that SDI research will be carried out within the provisions of the 1972 ABM Treaty, it is clear that planned demonstrations of some of the technologies will move the United States into areas of contention with the provisions of the Treaty [para. 12.38].

22.35 The pursuit of space-based missile defences under the SDI program is also likely to prevent the establishment of an anti-satellite regime, and could lead to a widespread loss of confidence in the U.S. Administration's commitment to future arms control negotiations. This may, in turn, lead other parties to abrogate their responsibilities under various multilateral agreements, in particular the Nuclear Non-Proliferation Treaty. Similar arguments of course apply to the Soviet Union. The Committee is concerned over continuing Soviet developments in ballistic missile and air defences and their potential impact on the 1972 ABM Treaty and American perceptions of the strategic balance. Therefore, it would seem prudent for the United States to continue basic research into ballistic missile defence and related technologies as a hedge against a possible Soviet abandonment at some time in the future. It should also examine ways of overcoming such defences. In contrast to SDI, this research should simply aim to allow the United States to deploy appropriate defences or counter-measures soon after a clear Soviet abandonment. Such research can be conducted at a fraction of the cost of SDI and without the atmosphere of crisis commitment that characterises the present program and which contributes to the mutual suspicion between the two nations [para. 12.39].

SDI and the Maintenance of Deterrence

22.36 The Committee considers that the limited deployment of space-based defences under the SDI program would tend to emphasise the principal destabilising trends that characterise extended deterrence. The Committee accepts that the current system of deterrence is under pressure from developments in technologies from both sides but considers that it would be wiser to try and constrain them - initially through the strengthening of the ABM Treaty - than move to a position of unimpeded competition.

22.37 In conclusion, the Committee acknowledges that the present system of deterrence, as it is evolving, poses a number of practical and moral dilemmas to national command authorities as well as severe dangers to world survival should deterrence fail. There is an urgent need to redress these dangers but the Committee has serious doubts whether the results of the current SDI program will provide a solution.

- R29. In the Committee's view, the continued pursuit of SDI will not lead to a more stable system of deterrence nor would it result in the abolition, or significant reductions in, nuclear weapons. Rather, SDI (or any similar Soviet program) is likely to set in motion a chain of events and reactions that would destabilise the current strategic balance and undermine the limited progress that has been made in arms control to date [para. 12.44].

22.38 The foregoing does not necessarily invalidate the concept of non-nuclear defence as originally articulated by President Reagan. What it shows is that such a system cannot easily be achieved while both sides possess large numbers of offensive weapons which continue to be improved and updated. The essential prerequisite of a defence-dominated future is political stability and major reductions in current nuclear arsenals. Any future transition to defensive deterrence will not be achieved by technical means alone. It requires the implementation of legal and political constraints to the continued existence and proliferation of nuclear weapons strengthened by the active intervention of science and technology. If the Reagan Administration wishes to establish a new international regime based on missile defences it should seek to address these two fundamental issues before rather than after or during the development of a system of ballistic missile defences.

- R30. The Committee believes that the United States should be prepared to defer further progress in the SDI program in return for similar assurances by the Soviet Union and progress in negotiations in Geneva on mutual reductions in offensive forces [para. 12.45].

Should Australia Contribute to SDI research?

22.39 The Committee considers that:

- a. Australia's support for, and participation in the SDI research program should be determined on the basis of the impact of the program on favourable arms control outcomes;
- b. the economic and technological benefits and spin-offs accruing to Australia from any participation in SDI research are likely to be small;
- c. Australia's official position on SDI research should be consistent with its position on SDI generally. Any Australian Government participation in SDI research would effectively constitute support for the program and the eventual outcomes of such research.

- R31. The Committee therefore recommends that Australia should decline to participate in the SDI program; and
- d. Australia should emphasise the required preconditions for any safe transition from an offence-dominated world to a defence-dominated one. These should be implemented before contributing to the development of the systems

themselves. If these conditions were accepted and formally agreed by both superpowers then Australian participation in subsequent defence-related research could be justified [para. 12.52].

Verification Technologies and Anti-Satellite (ASAT) Warfare (Chapter 13)

Verification

22.40 The Committee notes that the United States and the Soviet Union currently have different views on what constitutes an acceptable level of compliance with arms control agreements, and on what means should be employed to verify this level of compliance. The different positions taken by the superpowers is likely to make it very difficult to find a verification formula that would be acceptable to both sides. Failure to agree on verification could increase political tensions between the superpowers, and limit the prospect and scope for arms control agreements in the future. Such an eventuality would be extremely unfortunate. In the absence of further, substantial agreements, the arms competition between the superpowers would escalate and lead to the further development of potentially destabilising capabilities and technologies [para. 13.35].

22.41 The Committee considers that the United States and the Soviet Union should show similar moderation in their approach to verification and seek to improve the present climate for achieving arms control agreements by expressing public confidence in the existing arms control regime and avoiding actions that clearly violate current agreements. Further:

- R32. The United States should immediately ratify the SALT II Treaty as well as the Threshold Test Ban Treaty and the Treaty on Peaceful Nuclear Explosions. The Soviet Union should cease encrypting data on its ballistic missile tests and dismantle, or relocate, the Krasnoyarsk radar [para. 13.36];
- R33. The superpowers should make greater use of the Standing Consultative Committee (SCC) to raise non-compliance issues, consider questions involving interference with technical means of verification, and develop additional means of increasing the viability of existing agreements [para. 12.38]; and
- R34. The superpowers should avoid stipulating unnecessary verification requirements which automatically foreclose any opportunities for the negotiation of agreements and develop additional cooperative measures to overcome or lessen the importance of genuine verification difficulties [para. 12.36].

22.42 The Committee considers that verification standards should be sufficient, or adequate, to prevent violations that would vitiate the basic purposes of an agreement, or threaten the strategic balance. It further considers that the prospect of future arms control agreements is hindered by the growing nexus between verification and the politics of the superpower competition. This nexus needs to be broken. This is best achieved by developing independent means of verification which can be used to separate real and genuine compliance concerns from those being used to support political positions or arguments [para. 12.36].

To facilitate this process, the Committee recommends that:

- R35. the SCC (Standing Consultative Committee) be maintained as a channel of discussion on verification and related matters between the superpowers [para. 13.38]; and
- R36. independent means of monitoring compliance with existing or prospective agreements be developed, along with a bipartisan, non-government agency established to monitor and report on United States and Soviet compliance with arms control agreements [para. 13.38].

Australia's Role

22.43 The Australian Government has argued that verification is crucially important to successful arms control. The Committee supports this but is concerned by the lack of detailed public information on Australia's policy towards verification. The Government has stated that it is in favour of both 'adequate' and 'effective' means of verification without defining what it means by these terms. In view of the importance officially attached to verification:

- R37. the Committee recommends that the Government release a detailed statement on Australia's verification policy including:
 - a. the basic aim of verification and its relation to arms control (whether monitoring standards should be 'adequate' or 'effective');
 - b. the minimum satisfactory, from Australia's point of view, for technical verification and compliance standards that apply for existing arms control agreements and those additional agreements favoured by Australia;

- c. the current means of monitoring compliance and how these can be improved; and
- d. details of Australia's present contributions to verifying compliance with existing arms control agreements [para. 13.43].

22.44 The Committee considers that Australia should continue to contribute to the development of independent means of monitoring compliance with both bilateral and multilateral arms control treaties. It also should develop alternative means of overcoming or reducing the effects of compliance difficulties that arise from technical or other limitations [para. 13.34].

Anti-Satellite (ASAT) Warfare

22.45 The Committee shares the United Nations' and the Australian Government's concern over the prospects and potential consequences of continued and unrestrained development and deployment of ASAT weapons and capabilities. It concludes that the security of both the United States and the Soviet Union would be enhanced far more by the ensured survival of their satellite systems than by an ability to destroy satellites.

- R38. The Committee considers that it is important to begin negotiations on an agreement banning the further testing and deployment of all ASAT weapons as soon as possible. (Refer R6).

The initial treaty negotiations could be restricted to prohibiting the testing and development of future ASAT systems. Once agreed, the question of destruction of existing superpower ASATs should be considered and the treaty extended to all nations [paras. 13.55-56].

- R39. The Committee recommends that, Australia call for a ban on deployment of all existing ASAT systems and an immediate moratorium on the further testing, development and deployment of new ASAT systems [para. 13.56].

22.46 The Committee accepts that there may be some verification problems, particularly with respect to the destruction of ASATs and the overlapping functions of some civilian and military satellites. These may require special verification techniques to be developed. The Committee considers that on balance, the risks associated with potential non-compliance of the treaty are less than those of an unfettered competition in ASAT weapons and capabilities. In any case agreements to prevent further testing and deployment of ASAT weapons should not prevent either side from making its space assets robust against violations of such agreements [para. 13.57].

Nuclear Testing and the Comprehensive Test Ban (Chapter 14)

- R40. The Committee considers that there is an urgent need for a Comprehensive Test Ban (CTB) Treaty banning nuclear tests by all nations in all environments for all time [para. 14.77]. (Refer R3).

A CTB Treaty would inhibit the development of the weapons of the present nuclear weapons states, and would make it hard for other nations to acquire a credible nuclear weapons capability. It would demonstrate that the nuclear weapons states took seriously the pledge they made in the 1963 Partial Test Ban Treaty to achieve a comprehensive test ban, and in the 1968 Nuclear Non-Proliferation Treaty to move towards nuclear disarmament [para. 14.78].

22.47 The Committee notes that there is some further work required on matters of technical detail with respect to verification before all parties are satisfied that a CTB could be effective. It considers that these technical issues, while important, are not crucial to the commencement of negotiations on a comprehensive test ban treaty [paras. 14.80-82].

22.48 The Committee recognises and supports the actions of successive Australian governments in seeking to promote a comprehensive test ban. It considers that Australia should retain the establishment of such a treaty as a primary arms control objective and should continue its efforts in the United Nations General Assembly and the Conference on Disarmament to achieve it. In line with this view, the Committee considers that Australia should attempt to influence the United States into affording the CTB a higher priority than is presently the case. It considers that such a treaty could be signed without undermining deterrence or preventing modernisation of America's current strategic arsenals. It is also important that the Soviet Union's apparent support for a CTB be tested. This is best achieved by commencing formal negotiations into a comprehensive test ban treaty [para. 14.83].

22.49 The Committee considers that the current impasse in the Conference on Disarmament over the CTB requires a political solution, in addition to further technical negotiations favoured by the Minister for Foreign Affairs and his Department. One possible approach would be to seek to renegotiate the Threshold Test Ban Treaty and have it ratified by the United States Congress. At present the TTBT prohibits any underground nuclear weapon test having a yield exceeding 150 kilotons. This current threshold could be lowered to a level that effectively precludes the development of strategic nuclear weapons (say five kilotons). The revised treaty would be signed immediately but may allow the agreed threshold to be reached in a number of steps or over a period of time in order for detection and verification technologies to be perfected and inspection or challenge procedures to be agreed [para. 14.84].

- R41. The Committee considers that Australia should continue its work on the establishment of the National Seismological Monitoring Centre and the development of a National Monitoring Service as part of the UN-sponsored international seismic data exchange network [para 14.87].

The Committee considers the network should be established regardless of whether or not there is progress towards a CTB. To facilitate this development,

- R42. The Committee recommends that Australia sponsor further research into the existing problem areas associated with seismic monitoring and data exchange, and seek the release by all nuclear weapon states of information on past nuclear tests which could be used to calibrate the monitoring instruments.

Regardless of whether or not a CTB is established, the Committee considers that it is important that the United States ratify the 1974 Threshold Test Ban Treaty and the 1976 Peaceful Nuclear Explosions Treaty [paras. 14.77-78].

The Joint United States Australian Defence Facilities (Chapter 15)

22.50 The Committee acknowledges that over recent years an increasing amount of information on the facilities has been made publicly available, but it is aware that because of intelligence restrictions the information provided is still insufficient for members of this Committee, or the general public, to derive a fully informed and authoritative view on their role or contribution to global security [para.15.86].

- R43. The Committee considers that the Australian public should be told as much as possible about the purposes and functions of the joint facilities as is compatible with genuine considerations of Australian security requirements [para. 15.86].

The information provided should be sufficient to justify the Government's case for the retention of the facilities in Australia and it should, as a minimum, cover what is available on the public record in the United States. The information should address the following aspects:

- a. the technical characteristics and general functions and purposes of the individual facilities. What are they made up of and what do they do?
- b. the way in which the individual facilities fit into the overall strategic systems that are maintained by the United States. What are the

facilities connected to, how important are they to the continued operational survivability of the system and what alternatives exist; and

- c. the broader strategic and defence-policy context within which the facilities and their parent systems operate [para. 15.86].

Technical Considerations

22.51 On the basis of information drawn from the public record, a number of observations and conclusions can be made with respect to the functions and purposes of each of the facilities.

- a. North West Cape. The facility at North West Cape plays no role in the verification of arms control agreements and so should be judged solely in terms of its contribution to maintaining deterrence. It is clear that it supports extended deterrence by providing communications to submarines and surface ships of the United States and allied navies including U.S. attack submarines on patrol in the Indian and Pacific Oceans. North West Cape also appears to play a role in maintaining basic deterrence through the provision of communications to SLBM submarines. The importance of these roles seems to be decreasing with the introduction of alternative means of communication between U.S. command authorities and its SSBN fleet.

Given that the joint facility at North West Cape is a communications relay station, and the allegedly restricted access to the U.S. cypher office located at the facility, it seems unlikely that Australian personnel located at North West Cape could directly monitor orders being relayed through it.

- b. Nurrungar. The Joint Defence Space Communications Station at Nurrungar forms part of the U.S. satellite-based Defense Support Program (DSP). The DSP satellites and associated ground control stations provide early warning to the United States of Soviet ballistic missile launches as part of an initial attack on the United States, thus contributing to basic deterrence. The DSP satellites also carry nuclear detection (NUDETS) equipment which can be used to monitor above-ground nuclear explosions. This function could be used to verify arms control agreements although the DSP satellites are not essential for this purpose.

The importance of Nurrungar's contribution to America's early warning and assessment capabilities is decreasing with the deployment by the United States of new technologies and systems designed to improve the survivability and redundancy of its strategic C³ systems. If these developments continue on schedule, it would seem that over the coming decade, the Nurrungar ground station will no longer be required except perhaps as a back-up facility.

- c. Pine Gap. The Joint Defence Space Research Facility at Pine Gap is part of the United States' satellite intelligence monitoring network which collects a range of information on the military activities and forces of the Soviet Union or other targeted nations. The information can be used for a variety of purposes: to monitor compliance with arms control treaties; to provide early warning of a potential adversary's actions or intentions; for operational planning purposes; or to monitor existing operations - either conventional or nuclear. The actual use of the information gathered and the relative importance of these uses is very difficult to determine without access to official U.S. doctrines and policy.
- d. Other Facilities. There are a number of other facilities located throughout Australia which make some contribution to the United States' strategic posture. These include the Omega navigation station in Victoria (which is by its nature useful to any and all shipping and aircraft in the area), the Tranet satellite earth station in South Australia and the satellite ground station at Watsonia which is part of the U.S. DSCS network and links the Australian Defence Signals Directorate in Melbourne to the National Security Agency, the CIA and the Naval Ocean Surveillance Information Centre (NOSIC) in the United States. Very little is known about the functions of this last station except that it probably relays information on ship and aircraft movement which is collected by DSD high frequency-direction finding (HF-DP) stations located in Australia and its surrounding region. Such information would be used by the U.S. Command Authorities for operational intelligence purposes [para. 15.88].

22.52 Overall, it appears that the defence facilities in Australia are concerned primarily with supporting global deterrence and that verification of arms control agreements is secondary, albeit important role which has arisen because the

technologies used to satisfy both functions are the same. It would also seem that, from a technical point of view, some of the defence facilities are more important than others. The most important facility is the space research centre at Pine Gap. The functions carried out here relate to intelligence collection in Australia's own area of interest, they are highly complex and they require very powerful computer processing facilities. It is unlikely that the functions performed by Pine Gap could be easily transferred to another ground station or location, nor are they likely to be duplicated by on-board processors being placed on new generation satellites. The naval communications relay station at North West Cape plays an important role in maintaining deterrence and the space communications station at Nurrungar and the Tranet facility at Smithfield have both provided important contributions in the past, however, within the coming decade each may become redundant as a result of developments in satellite technology and improvements in and diversification of the United States' strategic C³ system [paras. 15.89-90].

Strategic and Political Considerations

22.53 The arguments used by the Government to support its case for the continued retention of the joint facilities in Australia, tend to emphasise the contribution that the joint facilities make to enhancing basic deterrence, crisis stability and verification of arms control agreements over other U.S. nuclear policy objectives. There is clear evidence that the joint facilities contribute to both basic and extended deterrence with the emphasis gradually shifting to the latter. Under this approach, emphasis is given to the development of counterforce capabilities, and the United States' threatened response to Soviet actions is thought to be made more credible by preparing targeting and contingency plans for a variety of possible military conflicts between the superpowers; plans which are designed to deny the Soviet Union the possibility of victory at whatever level of aggression it chooses to initiate and to minimise or preclude unwanted collateral damage in the event of war. These changes are in turn reflected in the changing role and functions of the joint facilities [para. 15.93].

22.54 While the facilities may be making an increasing contribution to extended deterrence, it remains the case that Pine Gap and Nurrungar in particular continue to operate in support of basic deterrence - primarily through their intelligence collection and early warning functions - and that Pine Gap provides the United States with an important National Technical Means of verifying Soviet compliance with existing or projected arms control agreements. Many of the facilities also provide a number of functions - navigation and radio relay for example - which are used by Australia's own defence forces to support our national security posture [para. 15.95].

Future Options

- R44. The Committee does not support the closure or conversion of the joint facilities, or their removal from Australia [para. 15.97].

Closure would only detract from the United States and have no impact at all on Soviet capabilities and doctrines. It would mean the end of ANZUS and halt the benefits that we currently derive from our present alliance relationship. It would also have a detrimental effect on the coherence of the Western alliance to the benefit of the Soviet Union providing both a potential military advantage and propaganda opportunities as well as an invitation to increase its presence in the Pacific and Indian Oceans. It could thus have a significant destabilising effect on our region, with potentially serious consequences for Australia's own security, as well as reduce the regional influence that Australia currently enjoys through its close security ties with the United States. A decision to close down the facilities would not be supported by the Australian population at large. Closure of the facilities at Pine Gap and Nurrungar would also reduce the United States' overall ability to monitor arms control agreements or receive early warning of Soviet actions that may threaten Western security [paras. 15.98-99].

22.55 The Committee notes that some of the facilities, notably the space communications station at Nurrungar, are slowly becoming redundant as a result of technological change and as the United States deploys additional C³I assets. It is thus possible that at some time in the future some of these facilities could be either closed down or converted to another role without any detriment to the United States' deterrent posture. The Committee also recognises that the use of the facilities are determined by broader strategic considerations which are beyond Australia's control. [para. 15.101]

22.56 The Committee considers that the Australian Government should be fully apprised of the operational details of each of the facilities and the technical and strategic developments that would affect their role and functions. As a matter of principle, the Committee considers that Australia should have sufficient control over all military facilities located on its soil to ensure Australia knows about and can prevent any use of the facilities that are inimical to Australia's own interests. Such control should involve as a minimum:

- a. participation in management decisions affecting the structure and operation of the facilities;
- b. access for Australian personnel to all areas within the facilities; and
- c. availability of all information passing through the facilities, or collected by them, to appropriately cleared Australian personnel located in Australia [para. 15.105].

22.57 The Committee notes that the role of the Joint Defence Space Communications Station at Nurrungar may decrease significantly in the next decade as the United States deploys alternative means of providing early warning of Soviet missile

launches. Consideration should be given to an alternative use from that time for the facility which directly assists Australia's defence posture. Conversion to this use could be negotiated in return for the continued presence of the other joint facilities. There may be value, for example, in converting the ground station for use in an Australian satellite-based system which would be used in conjunction with over-the-horizon radar and airborne early warning aircraft (AWACS) to provide surveillance of Australia's area of interest.

- R45. The Committee recommends that a feasibility study be conducted on this or similar eventual Australian use of the Nurrungar facility [para. 15.105].

Should the Joint Defence Facilities Be Used As Bargaining Chips to Achieve Australian Political or Economic Objectives?

22.58 The Committee does not support the use of the joint defence facilities as bargaining chips to advance trade or other economic interests. Such an approach may be seen to be politically expedient, but would be counterproductive since it would threaten Australia's current relationship with the United States and place in jeopardy the defence and national security benefits that we currently derive from them. A nation's national security interests cannot be equated with relatively short-term trade problems. The Committee further considers that the United States should not be required to pay an 'economic rent' for locating the facilities in Australia. The facilities operate under the joint control of the two governments and therefore provide benefits to both sides as well as the Western alliance generally [para. 15.112].

The South Pacific Nuclear Free Zone (Chapter 16)

- R46. The Committee supports the concept of nuclear free zones as a means of restricting or preventing the spread of nuclear weapons and of limiting the risks and consequences of nuclear war [para. 16.69].

The Committee recognises, however, that the application of this concept is not a simple matter, and must take into account a range of technical and political considerations which will vary with time and from region to region.

22.59 The Committee considers that the guidelines described in the 1975 United Nations Comprehensive Study of the Question of the Nuclear Weapon Free Zones in All its Aspects adequately describe these considerations and serve as a reasonable basis for defining and evaluating a nuclear weapon free zone [para. 16.70].

22.60 The Committee found that overall, the SPNFZ Treaty satisfies or takes into account the criteria laid down in the United Nations' study. The Zone itself has clearly defined boundaries. The Treaty recognises the rights of other states under international law to free passage through and over the

Zone. It provides for peaceful nuclear development under internationally recognised safeguards. It includes procedures for verification and control. It has the support of most Members of the Pacific Forum. Most importantly in the Committee's view, the Treaty as currently worded does not undermine existing security arrangements or agreements affecting the region since it does not threaten United States' involvement in the region [para. 16.72].

22.61 The Committee is concerned over some specific aspects relating to the Treaty. These are that:

- a. the verification and control procedures may be inadequate for detecting covert dumping of radioactive wastes within the region;
- b. to be fully effective, the Treaty needs to be formally recognised by the nuclear weapon states; and
- c. progress towards establishing an overall Convention against dumping radioactive waste in the Pacific may be hampered by incorporating anti-dumping provisions into what effectively is a nuclear weapon free zone treaty.

R47. The Committee recommends that the anti-dumping provisions in the SPNFZ be established as a separate protocol to the Treaty [para. 16.73].

22.62 The Committee found that while the SPNFZ Treaty is consistent with the guidelines laid down by the United Nations, it nonetheless falls short of achieving the basic objective of such UN defined zones: to ensure freedom from all nuclear weapons. This is because of the nature of the Zone itself - comprising predominantly international waterways - and the fact that the Treaty had to take account of the varying security concerns of the Pacific Forum states, especially those supporting the retention of an American presence in the region. The Treaty is thus essentially a consensus document, representing the highest common factor in regional opinion [para. 16.74].

22.63 The Committee considers that the SPNFZ Treaty plays a useful role in extending the non-proliferation regime and in preventing the future stationing of nuclear weapons within the South Pacific. Subject to the concurrence of the nuclear weapon states, it also formalises U.S. and Soviet assurances that nuclear weapons would not be used or threatened to be used against Zone states. More importantly, the SPNFZ is important politically since it re-focuses attention on the role of nuclear weapon free zones, places further pressure on the French to halt nuclear testing in the Pacific, and it could stimulate the development or progress of other zone proposals, especially those affecting the adjoining areas in the Indian Ocean and Southeast Asia [para. 16.75].

22.64 The Committee notes that the Zone has been widely acclaimed within the international community as the first significant regional arms control proposal since the 1971 Seabed Treaty. The Committee accepts that the Treaty does not require the formal recognition of the nuclear powers for it to be accepted internationally. Nonetheless, it considers that the spirit and provisions of the Treaty would be strengthened if at least the major nuclear powers signed the Treaty Protocols. The Committee considers that the SPNFZ does not undermine the security interests of the superpowers and could increase them in the longer term by limiting superpower competition and thereby ensuring regional stability [para. 16.76].

Uranium Mining and Australia's Role in the Nuclear Fuel Cycle (Chapter 17)

22.65 Those opposed to Australia's continued involvement in the civilian nuclear fuel cycle argue that the presence of a nuclear power industry lowers the barriers to the acquisition of nuclear weapons, and so contributes to horizontal proliferation, and that the present safeguards regime is insufficient for stopping the diversion of sensitive nuclear materials from the civilian into the military fuel cycles. As long as these conditions continue Australia cannot guarantee that its uranium, or products produced from it, will not be diverted into the manufacture of nuclear weapons. In line with our present non-proliferation policies, the critics argue that we should cease mining and exporting uranium. The critics generally support Australia's continuing efforts in the IAEA and elsewhere to improve nuclear safeguards, and they consider that this role should continue whether we remain a supplier or not [para. 17.30].

22.66 The Government and the Opposition, on the other hand, argue that the connection between the civil and military fuel cycles are overstated, that the safeguards applying to Australian origin nuclear material are adequate to prevent diversion and that Australia's withdrawal from the mining and export of uranium would not alter the world demand for or availability of uranium. It would also prejudice Australia's position on the Board of Governors of the IAEA thereby reducing our ability to ensure the continued improvement of nuclear safeguards and other components of the non-proliferation regime [para. 17.31].

The Connection between nuclear power and nuclear weapons

22.67 The Committee accepts that the basic connection between civil and military nuclear technologies has facilitated proliferation in the past and could continue to do so, although the risk of diversion from safeguarded civilian facilities is decreasing as safeguards are being extended and strengthened. The presence of a nuclear power industry can lower the technical and economic barriers to the acquisition of nuclear weapons although the principal risk appears to stem from other facilities, especially small, unsafeguarded research reactors and associated reprocessing plants. The Committee notes that

there is already a considerable civil nuclear industry in place throughout the world which performs a range of important functions and services. The possibility of diversion of sensitive nuclear materials from the civilian nuclear fuel cycle can never be completely eliminated. The proliferation risks associated with the industry need to be recognised and action taken to minimise them, principally through an effective safeguards regime [para. 17.35].

Safeguarding against diversion from the civilian nuclear fuel cycle

22.68 The IAEA nuclear safeguards and procedures are a crucial part of the non-proliferation regime. While much has been done in recent years to strengthen international safeguards, the effectiveness of the regime remains constrained by both technical and political factors, in particular:

- a. by the continued development of large-scale reprocessing plants and associated technologies such as the laser-based isotope separation process; and
- b. by the fact that the IAEA cannot monitor or constrain the intentions of governments and that the effectiveness of IAEA safeguards depends ultimately on the cooperation of participating nations.

R48. The Committee supports the ASTEC inquiry's recommendations that Australia should (1) encourage the establishment of a scheme to regulate effectively the storage and use of sensitive nuclear material; (2) constrain the number and exclusive national ownership of reprocessing and enrichment facilities; and (3) provide continued support and encouragement for research into the disposal of high level waste [para. 17.50].

It also considers that Australia should use its influence as a member of the IAEA Board of Governors to ensure that adequate safeguards are developed to prevent diversion of plutonium or enriched uranium from reprocessing or enrichment facilities [para. 17.50].

22.69 While the Committee acknowledges that safeguards are important in providing a timely warning of plutonium diversion it considers that a more appropriate approach may be to seek to restrict the civilian nuclear fuel cycle from using weapons-grade fissile material such as highly enriched uranium and plutonium. The Committee recommends that:

R49. the Australian Government should give consideration to promoting the acceptance of a civilian nuclear fuel cycle based on low-enriched uranium only [para. 17.51].

22.70 The Committee notes that Australia has made important contributions to the development and implementation of IAEA safeguards and policies. It considers that it is important that Australia continue to pursue initiatives to further improve the efficiency and effectiveness of the Agency's safeguard procedures particularly with respect to enrichment and reprocessing technologies. It supports the recommendations of the ASTEC inquiry that:

- R50. a. Australia should provide further resources to the IAEA and encourage other member countries to do the same; and
- R51. b. Australia make every effort to maintain and enhance its influence in the Agency [para. 17.52].

22.71 In view of the continued speculation over control of Australian uranium ore after it leaves Australia, the Committee welcomes the Government's decision to formulate government to government arrangements for the physical protection of uranium during transshipment and to ensure that nuclear material extracted for nuclear purposes from Australian ores after export would become subject to a safeguards agreement to which Australia is a party. The Committee is nonetheless aware that Australian uranium supplied to certain nuclear weapons states, or its fission products, could still, in breach of our safeguards agreements, be diverted from the civil fuel cycle or be used to replace indigenous material that is either re-allocated to nuclear weapons programs or supplied to other states [para. 17.55].

22.72 The Committee considers that this is an area in our safeguards policy which could be exploited to divert sensitive materials derived from Australian ore from the civilian to the military nuclear fuel cycle.

R52. The Committee considers that, as part of its review, the Government should examine the risks of diversion or misuse of AOMN by nuclear weapon states and implement measures to minimise them. Where Australian uranium is suspected of being so used Australia should insist on a full investigation and, if necessary, suspend supply [para. 17.56].

The Export and Use of Australian Uranium

22.73 The Committee accepts that there is no shortage of uranium in the world to supply fuel to the civil nuclear industry and that the industry can proceed whether or not

Australia is a supplier. It therefore supports the view that cutting off the supplies of uranium will not have any effect in reducing the number of nuclear weapons in the world. However nor is it likely to damage arms control and disarmament to any great extent. The principal impact of withdrawal of Australian uranium will be felt by Australia; through the loss of existing and potential export earnings and through our diminished influence in the International Atomic Energy Agency and other related bodies [para. 17.60].

- R53. The Committee believes that the non-proliferation regime is better served by Australia remaining a supplier of uranium ore [para. 17.61].

Australian uranium is supplied under very stringent safeguards. As noted by the ASTEC report, there is reasonable evidence that the imposition of these safeguards has not deterred prospective purchasers of Australian uranium. Indeed their acceptance may encourage other suppliers to insist on comparable conditions. Australia's role as an exporter has also enabled us to play an important role in establishing and developing the present nuclear non-proliferation regime. The Committee accepts the view of both ASTEC and the Government that withdrawal from the nuclear fuel cycle would reduce our influence in the IAEA which plays a key role in the non-proliferation regime [paras. 17.61-62].

Peace Education and Peace Research in Australia (Chapter 18)

Peace Education

22.74 The Committee found that there are differences of opinion within the community over the basic purpose and thrust of peace education, which in turn reflect the different philosophical and political preferences and world view of their advocates. The Committee considers that all valid perspectives should be made available to students, together with the opportunity and skills to enable them to systematically examine and approach their respective claims to be founded on 'the evidence' [paras. 18.13-17].

22.75 It must also be recognised that there is an inevitable link between 'peace education' and politics both at the ideological and practical levels. Certain approaches to 'peace education' are based, either implicitly or explicitly, on certain world views and the education system represents an important vehicle for certain individuals or groups to articulate their particular benefits. There is therefore a danger for 'peace education' to be used to advance the dogma of either the so-called right or the left. We should be aware that this is possible [para. 18.18].

22.76 Many peace analysts and educators agree that 'peace education' should be viewed globally and systematically to encompass the issues and emphases found in such related or overlapping concepts as 'disarmament education', 'development education', or even 'human rights education', that is, as

education which promotes objective, critical understanding of conflict or violence, of conditions of peaceableness, at the global, national, community and personal levels. The Committee agrees that this broader perspective of Peace Education should be encouraged as a legitimate and important element in the curriculum, but it is essential that such curricula be developed on a sound basis, free of sectional bias and propaganda. An overriding requirement is that the courses should encourage a spirit of critical inquiry [para. 18.21].

22.77 While the Committee supports the concept of Peace Education, it recognizes the difficulties associated with its introduction into the education system. There are many areas which require further examination. Until such examination is carried out:

- R54. the Committee recommends that, in the short term, a less controversial and radical approach be adopted by incorporating 'peace studies' into existing subjects [paras. 18.22-23].

It is also clear that what is going on in the education community in relation to Peace Education - preparation of curriculum materials, guidelines, in-service activities and so on - is being done in an uncoordinated fashion. There is need for further examination of the significance of peace education and research in Australia and the formulation of agreed means by which the education community can respond to this new demand [para. 18.24].

22.78 It is the Committee's view that a satisfactory response will not be gained through another Parliamentary Inquiry or any expert bureaucracy's proliferations. The authors of a satisfactory response are more likely to emerge as practitioners with experience whose work commends their approach to others and from whom useful materials will be sought [para. 18.24].

Peace Research

22.79 The Committee considers that the Peace Research Centre can perform valuable service in contributing to a high standard of governmental and community understanding on disarmament and arms control issues in Australia. The Committee considers that, in the interests of raising the level of community awareness, public debate and research capacity throughout Australia on issues of disarmament and arms control, the Peace Research Centre's activities should extend beyond, without prejudice to, its formal research functions to activities such as:

- disseminating its work to the Australian community;
- assisting the direction and form of the development of peace education; and
- providing a focus for, and where possible facilitating related research efforts at other tertiary institutions.

These associated functions could be followed through activities such as:

- . sponsorship of research and teaching projects at other tertiary institutions;
- . development of a specialist library and data base available to other researchers;
- . sponsorship of resident and visiting lecturing programs, in Canberra and inter-state; and
- . publication of its work [para. 18.38].

The important questions of the range of activities appropriate for the Centre, its performance of those functions and activities, and the adequacy of its resources will need to be regularly reviewed, especially in the formative stages of the Centre's development. On the question of continued funding, the Committee considers that there is scope to seek private sources of revenue - through corporate or individual donations - to augment Government support whatever the source of its funds the Centre's ability to conduct research in an objective and independent way must be ensured [para. 18.38].

Chemical and Biological Weapons (Chapter 7)

- R55. The Committee supports the Government in its view that it is vitally important for all nations to continue to observe the Biological Warfare Convention and to establish a Convention prohibiting the possession and use of all chemical weapons as quickly as possible [para. 7.72].

Modern chemical and biological weapons pose an unprecedented threat to humanity, second only to the risks of nuclear war.

22.80 The Committee considers that the Conference on Disarmament (CD) should continue its work on drafting a Convention on Chemical Weapons using the United States' draft and the Soviet Union's Basic Views as a basis for negotiations and discussions. Australia should continue to encourage both parties to seek agreement on the vital areas of verification and compliance. The Committee believes that the consideration of chemical and biological weapons needs to be separated from the politics of nuclear and conventional armaments and considers that Australia should work to remove this linkage. In order to facilitate progress in the CD, it is also necessary to address concurrently the political and technical obstacles confronting the CW problem. Noting that the U.S., the only other major holder of chemical weapons, has declared its stocks, the Committee therefore recommends that:

- R56. a. Australia should encourage the Soviet Union and France to declare their existing stockpiles of chemical weapons, possibly allowing a neutral body to inspect and confirm their present holdings;

- R61. b. Australia should encourage both the United States and the Soviet Union to declare a moratorium on the further development and deployment of chemical weapons for a fixed period which could be extended in the event of progress on agreement of a Chemical Weapons Convention in the CD; and
- R62. c. propose the establishment, under the aegis of the United Nations, of a consultative body to hear allegations of CW treaty violations, examine such allegations where necessary and report its findings [para. 7.73].

The same body could also review and report its findings, review developments in technology or science which could upset the CW regime and consider appropriate changes to the regime. The body would gain formal recognition when the proposed Convention entered into force but should be established as soon as possible and independently of the status of the Convention [para. 7.73].

Senator K. W. Sibraa
Chairman
September 1986

APPENDIX 1

PERSONS PARTICIPATING IN DISCUSSIONS WITH THE COMMITTEE

Australian Conservation Foundation
Mr R.E. Phelps, Project Officer

Australian Quaker Peace Committee (Victoria)
Mr G.D. Hess, Convenor
Mr P.D. Jones, Field Worker
Mr B. Pittock, Member

Dr D. Ball, Head, Strategic and Defence Studies Centre,
Australian National University, Canberra.

Dr H. Blix, Executive Director, International Atomic Energy
Agency, Vienna.

H.E. Mr Richard Butler, Australian Ambassador for Disarmament.

Ms H. Clark, MP, Chairperson, Sub-Committee on Disarmament and
Arms Control, New Zealand Parliament.

Commonwealth Scientific and Industrial Research Organisation,
Division of Atmosphere Physics, Mordialloc, Victoria
Mr Z. Galbally, Principal Research Scientist
Mr B. Hunt, Senior Principal Research Scientist
Dr G. Tucker, Chief of Division

Dr J. Dahlitz, Research Fellow in International Law and
International Relations School of Peace Studies, University of
Bradford.

Department of Defence officials, Canberra.

Department of Foreign Affairs officials, Canberra.

Mr A. Eida, Executive Director, International Peace Research
Institute, Oslo.

Mr J. Goldblat, Senior Member, and Dr S. Lodgaard, Member,
Stockholm International Peace Research Institute, Stockholm.

Greenpeace Australia
Ms M. Shanahan, National Disarmament Co-ordinator

Mr J. Martensen, United Nations Under Secretary-General for
Disarmament.

People for Nuclear Disarmament, New South Wales
Ms A. Horsler, Member
Mr D.J. Worth, Organiser

People for Nuclear Disarmament, Victoria
Mr R. Bolt, Convenor
Mr N.J. Maclellan, Member

Scientists Against Nuclear Arms, New South Wales
Mr M. Beard, Secretary

Mr H. Shapar, Director General, Nuclear Energy Agency,
organisation for Economic Co-operation and Development.

Ms I. Thorsson, Former Swedish Under Secretary of State for
Disarmament.

Union of Soviet Socialist Republic's arms control delegation led
by Dr V. Petrovskii, Head, International Organisation Division,
Ministry of Foreign Affairs, Moscow.

United States Government arms control delegation led by Dr K.
Adelman, Director, Disarmament and Arms Control Agency,
Washington.

United States Government Strategic Defense Initiative
Consultation Team led by Mr Robert Linhard, Acting Senior
Director for Defense and Arms Control Issues, National Security
Council.

Women's International League for Peace and Freedom
Ms E. Mattick, President, Australian Section

World Conference on Religion and Peace (Australia)
Reverend P. Huggins, Melbourne

APPENDIX 2

WITNESSES WHO APPEARED AT PUBLIC HEARINGS

Australian Conservation Foundation

Mr D.G. Hill, Deputy Director, Hawthorn, Victoria.

Australian Council of Churches

(Churches Commission on International Affairs)

Ms M.L. Bearlin, Member, Canberra, Australian Capital Territory.

Bishop D.A. Garnsey, Chairman, Canberra, Australian Capital Territory.

Mr D.L. Purnell, Honorary Secretary, Canberra, Australian Capital Territory.

Clergy for Peace

Reverend W.N. Campbell, Secretary-Elect, Melbourne, Victoria.
Reverend P.J. Huggins, Secretary, Melbourne, Victoria.

Department of Defence

Mr W. Connick, Director, Materials Research Laboratories, Canberra, Australian Capital Territory.

Mr R.K. Thomas, Assistant Secretary, ANZUS and United Nations Branch, Canberra, Australian Capital Territory.

Air Commodore M.A. Turnbull, Director-General, Military Staff, Strategic and International Policy Division, Canberra, Australian Capital Territory.

Department of Foreign Affairs

His Excellency Mr R. Butler, Australian Ambassador for Disarmament, Canberra, Australian Capital Territory.

Mr A.D. Campbell, Acting Deputy Secretary, Canberra, Australian Capital Territory.

Mr T.C. Findlay, Acting Head, Disarmament and Multilateral Section, Canberra, Australian Capital Territory.

Dr R.J.D. Gee, Acting Head, Arms Control Section, Canberra, Australian Capital Territory.

Mr J.W. Sullivan, Acting Assistant Secretary, Peace and Disarmament Branch, Canberra, Australian Capital Territory.

Mr J.A. Tilemann, Acting Assistant Secretary, Nuclear Policy Branch, Canberra, Australian Capital Territory.

Mr D.A. Townsend, Assistant Secretary, Nuclear Policy Branch, Canberra, Australian Capital Territory.

Mr R.A. Walker, Acting Special Disarmament Adviser, Canberra, Australian Capital Territory.

Friends of the Earth (Manly) Queensland

Mr L.R. Drake, Secretary, Manly, Queensland.
Mr K. MacDonald, President, Manly, Queensland.

International Atomic Energy Agency

Dr H. Blix, Director General.

Medical Association for Prevention of War

Australian Branch

Dr G. Mann, Member, NSW Organising Committee, Camperdown, New South Wales.

Dr J.A. Ward, Secretary, Camperdown, New South Wales.

South Australian Branch

Dr P.F. Furze, Committee Member, North Adelaide.

Dr I. Maddocks, National President and South Australian State Co-ordinator, North Adelaide.

Tasmanian Branch

Dr T.G. Donald, Member, Hobart.

Dr R.J. Von Witt, Member, Hobart.

National Spiritual Assembly of the Baha'is of Australia

Dr J.A. Davidson, Member, Mona Vale, New South Wales.

Nuclear Disarmament Party

Dr M.A. Denborough, National Chairman, Canberra, Australian Capital Territory.

People for Nuclear Disarmament - New South Wales

Miss A.E. Horsler, Member, Sydney, New South Wales.

Mr D.J. Worth, Organiser, Sydney, New South Wales.

People for Nuclear Disarmament - Queensland

Mrs T.M. Brunton, Member, West End, Queensland.

Mr G.R. Clarke, Member, West End, Queensland.

Mr M.D. Hayes, Adviser, Toowong, Queensland.

Dr N.W. Preston, Chairperson, West End, Queensland.

People for Nuclear Disarmament - Victoria

Mr M.E. Hamel-Green, Member, Carlton South, Victoria.

People for Nuclear Disarmament (Camberwell) - Victoria

Mr M.D. Browning, Contact Person, Camberwell, Victoria.
Miss J.C. Crawford, Member and Member of Executive Council
of the Central Organisation of People for Nuclear
Disarmament, Camberwell, Victoria.
Mr R.O. Desailly, Convenor, Camberwell, Victoria.

Peace Research and Resource Centre of Queensland

Mr R.J. Foote, Member, Toowong, Queensland.
Mr M.D. Hayes, Member, Toowong, Queensland.
Ms A.T. Ingamellis, Member, Toowong, Queensland.

Religious Society of Friends

(Quaker Peace Committee of the Hobart Regional Meeting)

Dr M.A. Bailey, Member, Newtown, Tasmania.
Dr D.H. Coward, Corresponding Secretary, Newtown, Tasmania.

Returned Services League of Australia

Commodore K.D. Gray, DFC, RAN (Retired), Member, National
Defence Committee, Canberra, Australian Capital Territory.
Major-General D. Vincent, CB, OBE (Retired), Chairman,
Defence Committee, Canberra, Australian Capital Territory.

Scientists Against Nuclear Arms

National Branch

Mr M. Beard, Secretary, Lane Cove, New South Wales.

South Australian Branch

Dr A. Grisogono, State Co-ordinator, Clarence Gardens.
Professor W. Moran, Member, Clarence Gardens.
Dr J.W. Rice, Member, Clarence Gardens.

Tasmanian Branch

Dr M.L. Duldig, Secretary, Hobart.
Dr I.A. Newman, Convenor, Hobart.

United Nations Association of Australia

South Australian Division

Mr C.J. Hoskyns, Chairman, Disarmament Committee, Adelaide.

Tasmanian Branch

Mr N.J. Heyward, Immediate Past President, Hobart.
Mr C.H. McI. Hazlewood, Executive Director, Hobart.
Dr D.D. McLean, Committee Member, Hobart.

Uniting Church in Australia - Queensland Synod

Dr F.E. Guard, Member, Social Responsibility Committee and
Member, National Assembly Committee, Spring Hill.
Mr M.D. Hayes, Consultant on Peace and Disarmament Issues,
Social Responsibility Committee, Toowong.
The Reverend J. Woodley, Consultant for Social Responsibility
Committee and Acting Chairman, National Committee for
Social Responsibility, Spring Hill.

Wildlife Preservation Society of Queensland

Mr D. Henry, Director, Petrie Terrace.
Mr J. Sinclair, President, Petrie Terrace.

Women's International League for Peace and Freedom

Ms V.G. Abraham, Honorary Secretary, Australian Section,
Sydney, New South Wales.
Mrs M.J. Holmes, Past President, Australian Section, Sydney,
New South Wales.
Ms E.W. Mattick, President, Australian Section, Sydney,
New South Wales.
Mrs E. Rathgeber, Member and Past President, UNESCO Liaison
Officer, Sydney, New South Wales.

Private Citizens

Dr D. Ball, Head, Strategic and Defence Studies Centre,
Australian National University, Canberra, Australian
Capital Territory.
Mrs S. Cornelius, P.O. Box 1016, Chatswood, New South Wales.
Dr J.E. Falk, 36 Ramah Avenue, Wollongong, New South Wales.
Mr G.E. Fry, Representative of the Strategic and Defence
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APPENDIX 3

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Mr G. Pamount, PO Box 485, Noarlunga, South Australia	S 771
H. Haub, Queensland Branch, Union of Australian Women, Brisbane, Queensland	S 772
D. Hess, 3 The Avenue Hampton, Victoria	S 773
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Mr G. Shenman, 2 Tower Road, Hobart, Tasmania	S 793
Mr J. Lomax, 'Hopgrove', Lachlan, Tasmania	S 795
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Mrs B. Chandler, Bridge Creek Road, Maleny, Queensland	S 847

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H.M. Gill, G. Garrad L. Carruthers, Sunshine Coast Hospitals Board, Hospital Road, Nambour, Queensland	S 855
J. Jordan, PO Box 87, Maleny, Queensland	S 857
S.M. Smith, Bellthorpe West via Woodford, Queensland	S 858
P. Bear, Queensland	S 860
Anon	S 865
The South Australian Committee of Support for the United Nations Special Session on Disarmament	S 870
R. Holden, New-Clear Awareness Group, PO Box 152, Bellingen, New South Wales	S 875
People for Peace and a Nuclear Free World, PO Box 5918 CMC, Cairns, Queensland	S 880
Christians for Peace, 27 Bibby Street, Hamilton, New South Wales	S 882
The Environment Centre (Northern Territory) PO Box 2120, Darwin, Northern Territory	S 884
Socialist Party of Australia, South Australian Branch, 185 Sturt Street, Adelaide, South Australia	S 886
Australian Peace Committee, (S.A. Branch) 11-16 South Terrace, Adelaide, South Australia	S 888
Conservation Council of South Australia Inc.	S 890
Senator the Hon. D.L. Chipp, Leader of the Australian Democrats, Parliament House, Canberra, Australian Capital Territory	S 896
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Nambucca Anti-Nuclear Association, PO Taylors Arm, New South Wales	S 927

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Bellinger and Plateau Conservation Society, PO Box 153, Belligen, New South Wales	S 942
V.G. Gallagher, 9 Blackmore Street, Windsor, Queensland	S 946
Medical Association for Prevention of War Australian Branch, PO Box 113, Camperdown, New South Wales	S 952
AWD Australia, New South Wales, Region, PO Box A63, Sydney South, New South Wales	S 955
Ms J. McNicol, PO Box 292, West End, Brisbane, Queensland	S 960
R. Pitty	S 964
Mr M. Hopkins, 6 Fox Place, Lyneham, Australian Capital Territory	S 968
M. Paine, Beacon Hill, New South Wales	S 981
Revesby Social Justice Group, New South Wales	S 1006
Mid-North Coast Peace Group	S 1019
Nuclear Disarmament Association, c/- History Department, Wollongong University, PO Box 1144, Wollongong, New South Wales	S 1021
Campaign Against Nuclear Energy, 291a Morphett Street, Adelaide, South Australia	S 1024
People for Nuclear Disarmament, Diamond Valley, 2 Symes Street, Lower Plenty, Victoria	S 1043
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The Nonviolent Action Co-operative, PO Box 292, West End, Queensland	S 1062
Mr S.J. Davies, PO Box 215, Maleny, Queensland	S 1123

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Campaign Against Nuclear Power, PO Box 238, North Quay, Queensland	S 1125
Australian Peace Committee, Box 32, Trades Hall, Goulburn Street, Sydney, New South Wales	S 1142
Department of Resources and Energy, Canberra, Australian Capital Territory	S 1148
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Collingwood People for Nuclear Disarmament, Melbourne, Victoria	S 1188
AWD Australia, Queensland Region, GPO Box 1474, Brisbane, Queensland	S 1193
Knox People for Nuclear Disarmament	S 1196
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Senator the Hon. D.L. Chipp, Australian Democrats, Parliament House, Canberra, Australian Capital Territory	S 1207
H.G. Gelber, University of Tasmania, Hobart, Tasmania	S 1214
SANA - Scientists Against Nuclear Arms, PO Box 370, Lane Cove, New South Wales	S 1239
National Spiritual Assembly of the Bah'ais of Australia Inc., PO Box 285, Mona Vale, New South Wales	S 1249
Australian Conservation Foundation, 672B Glenferrie Road, Hawthorn, Victoria	S 1269
Women's International League for Peace and Freedom, 24/106 Young Street, Cremorne, New South Wales	S 1272
Friends of the Earth, PO Box 20, Manly Queensland	S 1275
Revesby Social Justice Group, 70 Tracey Street, Revesby, New South Wales	S 1283
CSIRO Atmospheric Research, Private Bag 1, Mordialloc, Victoria	S 1286

SUMMARY OF DISSENTS

The following members of the Committee dissented from the Report in the areas indicated. The detailed dissents are contained in the full Report, pages 681 to 705.

1. Dr R.E. Klugman, MP
 - . General Approach
 - . The Strategic Defense Initiative
 - . Deterrence

2. Mr P.J. Baldwin, MP
Dr A.C. Theophanous, MP
Mr L. Kent, MP
 - . Introduction
 - . The Spread of Nuclear Weapons
 - . Criticisms of Australia's Role in Disarmament and Arms Control
 - . The Strategic Defense Initiative
 - . The Joint United States Australian Defence Facilities
 - . The South Pacific Nuclear Free Zone
 - . Uranium Mining and Australia's Role in the Nuclear Fuel Cycle
 - . Peace Education and Peace Research in Australia
 - . Recommended Strategies and Policies

3. Hon A.S. Peacock, MP
Senator B.C. Teague
Mr R.F. Shipton, MP
Hon R.C. Katter, MP
Hon M.J.R. MacKellar, MP
Senator R. Hill
Mr D.F. Jull, MP
Mr W.P. Coleman, MP
Mr N.J. Hicks, MP
Hon I.L. Robinson, MP
Senator N.A. Crichton-Browne
Senator D.J. MacGibbon
 - . The South Pacific Nuclear Free Zone
 - . The Strategic Defense Initiative
 - . Deterrence
 - . Verification

THE PARLIAMENT OF
THE COMMONWEALTH OF AUSTRALIA



Joint Committee of
Foreign Affairs and Defence

DEPARTMENT OF THE SENATE	
PAPER No.	4942
DATE	25 NOV 1986
PRESENTED BY	<i>W. L. ...</i>
Clerk of the Senate	

DISARMAMENT AND ARMS CONTROL
IN THE NUCLEAR AGE



DISARMAMENT
AND ARMS CONTROL

in the Nuclear Age.

Report from the Joint Committee on Foreign Affairs and Defence