

CHAPTER SIX  
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24. This discussion is drawn largely from United Nations Centre for Disarmament, Comprehensive Study on Nuclear Weapons, New York, 1981 and Leo Sartori, 'The Weapons Tutorial Part Five: When the bomb falls', Bulletin of the Atomic Scientists, June/July 1983, pp.40-47. A summary of the biological effects of ionizing radiation, including radiation emitted from nuclear weapons is given in The Nuclear Almanac: Confronting the Atom in War and Peace, Massachusetts, Addison-Wesley, 1984, Chapters 4, 12 and 13.
25. One rad is the amount of radiation energy absorbed per unit mass of absorber. The rem - standing for Roentgen Equivalent Mammal - is also a measure of absorbed radiation dosage but it takes into account the fact that equal doses of different radiations may have different biological effects. For example, neutron radiation or the radiation emitted from radium (largely alpha particles) have eight to ten times the effect on living tissue than x-rays. Both units are used in the literature. For most of the radiation from a nuclear burst, dose equivalents in rem are approximately equal to doses in rad.
26. See L.W. McNaught, Nuclear Weapons and Their Effects, London, Brassey's Defence Publishers, 1984, Chapter 7; and Comprehensive Study on Nuclear Weapons, pp.159-60.
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46. Evidence, 23 May 1984, p.62.
47. Evidence, 9 August 1984, p.579.
48. Evidence, 9 August 1984, p.580.
49. Evidence, 9 August 1984, p.581.
50. Evidence, 25 April 1985, pp.61-70 and Pittock, Submission, pp.81286-91.
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## Appendix

THE PHYSICS OF NUCLEAR EXPLOSIONS AND NUCLEAR WEAPONS<sup>1</sup>

- 6.75 All of matter on earth is made up of atoms. An atom consists of a central core called the nucleus, which contains nearly all of the mass of the atom and is positively charged, surrounded by a cloud of negatively charged electrons. The nucleus of an atom contains positively charged particles called protons, and particles with no electrical charge called neutrons. The protons and neutrons in the nucleus are held together by a very strong force called the nuclear force.
- 6.76 The chemical properties of different atoms are determined by the number of protons in the nucleus. Atoms of the same chemical element always have the same number of protons in their nucleus, but they may have different numbers of neutrons. Atoms that have the same number of protons, but different numbers of neutrons, are called isotopes of the same element. Uranium, for example, has two commonly occurring isotopes designated by the symbols U235 and U238. Each isotope has 92 protons but U235 has 143 neutrons whereas U238 has 146. The chemical properties of the two isotopes are the same but they have very different nuclear properties.
- 6.77 The stability of atomic nuclei depends on the number of protons and neutrons contained within them. If an atom has too many or too few neutrons, the nucleus may be unstable, and may spontaneously change its state to reach a more stable condition. It does this by releasing energy usually as radiation. This nuclear radiation can take a number of different forms: alpha particles (positively charged helium ions containing two protons and two neutrons), beta radiation (electrons), neutron radiation, gamma radiation or x-rays.
- 6.78 The time at which a particular unstable or radioactive isotope emits radiation is completely random. However, for each isotope, there is a characteristic average rate at which a sample of the material 'decays'. This is usually defined as the half-life of the isotope which is the time taken for half of the total number of atoms in a sample to decay to the next lowest energy state.
- 6.79 Different types of nuclear radiation interact with matter in different ways (see Table 6A.1) The effects of radiation on living things have been extensively studied, and have been found to include cancer, cell disruption and death, genetic defects and radiation sickness. Exposure to radiation may occur through external and internal pathways. External exposure results from a source located outside the body. Internal exposure results from radioactive atoms entering the body by breathing in contaminated particles in the air, eating contaminated food or drinking contaminated water.

## Nuclear Fission and Fusion

- 6.80 Unstable isotopes can be artificially created by bombarding certain elements with neutrons. The isotopes thus

formed can undergo radioactive decay or they can go through a process called nuclear fission whereby the unstable nucleus splits into two lighter nuclei and simultaneously emits two or more neutrons and considerable energy. The energy released is over a million times as much, atom for atom, as that obtained from ordinary chemical combustion. It stems from the strong nuclear forces that hold the nucleus together and is defined by Einstein's famous equation  $E = MC^2$ . Here E represents the energy released, M is the mass difference between the complete nucleus and its constituent parts and C is the speed of light.

6.81 A second way to release nuclear energy is through the process known as fusion. Nuclear fusion is the joining (or fusing) of the nuclei of two atoms to form a single heavier atom. At extremely high temperatures - in the range of tens of millions of degrees - the nuclei of isotopes of hydrogen (and some other light elements) can readily combine to form heavier elements and in the process release considerable energy. Fusion is the mechanism of energy release in the stars.

#### Fission Weapons

6.82 As far as producing a weapon is concerned, the fission of one nucleus of U235 would have very little effect on its own. What is required is the almost simultaneous energy release of a large number of fission events. This is achieved by causing what is known as a chain reaction, where neutrons released by one fission event in turn induce fission in other fissionable nuclei, and so on.

6.83 When U235 fissions, an average of about 2.5 neutrons are produced. A portion of these neutrons is captured by nuclei that do not fission and others escape the material without being captured. What is left can cause further fission. If more than one neutron per fission remains for the chain reaction, more fissions are achieved in the next series (or 'generation') of reactions than in the previous one. To achieve a high efficiency in a nuclear explosion, a very rapid growth in the number of fissions is required.

6.84 Many heavy atomic nuclei are capable of being fissioned but only a small number are fissile, that is capable of absorbing both low and high energy neutrons. Fission weapons are normally made using fissile materials, principally U235, Plutonium-239 (Pu239), U233 or some combination of these. U238 and Thorium-232 (Th232), which occur abundantly in nature, are also fissionable but only by high-energy neutrons so they cannot sustain a chain reaction by themselves. They can, nevertheless, be used to contribute to the yield of a nuclear explosion where the many excess high energy neutrons generated in other fission or fusion reactions can cause them to fission.

6.85 Uranium as found in nature consists primarily of the isotopes U235 and U238 where the concentration of the fissile U235 is about 0.7 per cent. This percentage concentration has to be increased in order to produce weapons-grade uranium. This is done by a chemical enrichment process (See Chapter 17). The uranium used in most modern nuclear weapons is 93.5 per cent enriched U235.

Table 6A.1: Different Types of Ionising Radiation

TYPE	COMPOSITION	INTERACTION WITH MATERIALS
Alpha	2 protons, 2 neutrons (positively charged helium nucleus)	Will just penetrate human skin, stopped by a sheet of paper.
Beta	Electron (negatively charged particle)	Passes through about one centimetre of flesh, stopped by thin sheet of aluminium.
Gamma	Electromagnetic radiation (no charge, very energetic)	Passes right through human body, but absorbed by one metre of concrete.
X-ray	Electromagnetic radiation (no charge, energetic)	Less penetrating than gamma rays, but still passes through human flesh. Absorbed by lead sheet.
Neutron	Neutron (uncharged particle)	Also very penetrating, and passes through human flesh. Slowed, particularly by light nuclei; efficient shielding is supplied by about one metre of water.

Source: Australia's Role in the Nuclear Fuel Cycle, p. 37.

6.86 Pu239 does not occur naturally and has to be manufactured in a nuclear reactor. In theory plutonium compounds containing 6-10 per cent Pu239 are usable for weapons although in practice concentrations of around 93 per cent are used. While Pu239 is more expensive to produce than U235, smaller amounts are required for an explosive device. It also generally provides higher yield-to-weight ratios, and smaller weapons sizes and weights than comparable uranium weapons.

#### Critical Mass

6.87 The minimum mass of material necessary to sustain a chain reaction is called the critical mass and is dependent on the type of fissile material, its density and the geometry of the weapon. The critical mass for U235 is around 15kg whereas it is 5kg for Pu239. A mass of material that is less than the critical mass is said to be subcritical whereas a mass greater than the critical mass is referred to as supercritical.

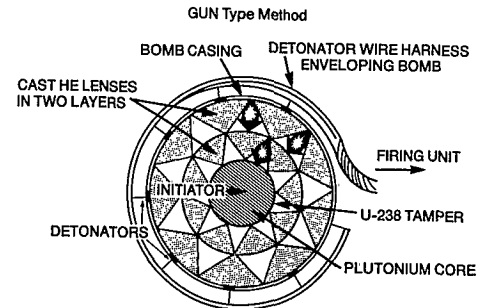
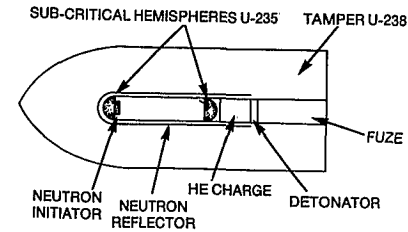
#### Fission Warhead Design

6.88 A fission bomb works by assembling a supercritical mass of fissile material in a very short period of time in order to achieve a rapidly multiplying chain reaction. Two basic nuclear weapon design approaches are used: the gun assembly technique and the implosion technique.

6.89 These two methods are illustrated in Figure 6A.1. In the gun assembly technique, two sub-critical pieces of uranium are brought together by an explosive charge inside a cylindrical tube much like the barrel of a gun. The tamper and reflector materials surrounding the explosion chamber are to keep the fissile material together long enough to enable the chain reaction to fully proceed (approximately 80 generations). The gun method suffers from a number of limitations. It does not make economical use of U235, the size and yield of the weapon is limited by the sub-critical mass of U235, and Pu239 cannot be used because it can spontaneously fission and so reduce the chain reaction thereby reducing the yield.

6.90 These difficulties are overcome by the implosion technique. Here a sphere or shell of fissionable material is compressed by the focused blast of surrounding chemical explosives to about twice its normal density which allows it to become supercritical. A precisely timed burst from an electronic neutron source triggers a massive chain reaction ensuring a high-yield nuclear explosion. This method uses much smaller subcritical masses than the gun technique and so makes more economic use of fissile material. It also allows the use of Pu239 since that element's tendency to fission spontaneously becomes less important since the rate of achievement of supercriticality of the implosion method is much faster. Weapons based on this technique are more difficult to manufacture however and care must be taken not to damage or distort their component parts.

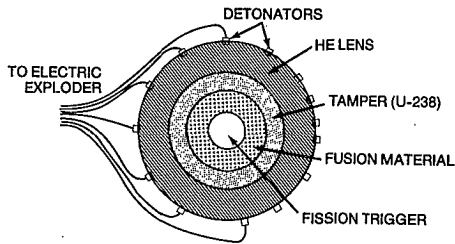
Figure 6A.1: Fission warhead mechanisms



The IMPLOSION Weapon

Source: L.W. McNaught, *Nuclear weapons and their effects*, Brassey's Defence Publishers, London, 1984, p.16 and 18.

Figure 6A.2: Basic diagram of a fusion weapon.



Source: L.W. McNaught, *Nuclear weapons and their effects*, p.19.

### Fusion Weapons: The Thermonuclear Bomb

6.91 As described earlier, fusion involves the combination of light nuclei to release energy. A **fusion** or **hydrogen** or **thermonuclear** bomb uses a fission explosion to create the temperature and pressure required to ignite a fusion reaction. Thus they are nuclear weapons in which at least a portion of the release of energy occurs through nuclear fusion. Most fusion weapons derive their energy from the combination of the hydrogen isotopes deuterium and tritium into helium. The actual source material for a fusion explosion is usually the chemical compound lithium deuteride which is a solid at room temperature and produces tritium when it is bombarded by neutrons.

#### Fusion Warhead Design

6.92 In thermonuclear weapons the fusion material can be incorporated directly into (or proximate to) the fissile core or external to the core or both. A typical arrangement is shown in figure 6A.2. Atom for atom, the energy released in a fusion reaction is less than that released in fission, but the atoms involved in fusion are much lighter, so the maximum energy obtained from fusion can be some 3 times as great per unit weight as that obtainable from nuclear fission. The yield of a thermonuclear device can be increased by surrounding it with a layer of U238 or other fissionable material. This layer is sometimes referred to as the third stage of what would otherwise be a two stage weapon.

6.93 As there is no critical mass problem associated with fusion weapons and since there is no theoretical limit to the number of stages that might be used, there is in theory no limit to the size and yield of a thermonuclear weapon. There are practical limits, however, in designing and manufacturing such weapons. The largest known device ever tested in the atmosphere was a Soviet fission-fusion 60MT weapon.

#### Enhanced Radiation Weapons (Neutron Bombs)

6.94 The 'neutron bomb' is a thermonuclear device designed to maximise the lethal effects of high energy neutrons produced by the fusion of deuterium and tritium and to reduce the blast from the explosion. This is achieved by minimising the fission yield with respect to the fusion yield. Enhanced radiation warheads can be of extremely small total yield, down to fractions of 1KT, and can be delivered by medium field artillery.

**Note:** 1. For more details, see Thomas B. Cochran, William M. Arkin and Milton M. Hoenig, *Nuclear Weapons Databook, Volume 1: U.S. Nuclear Forces and Capabilities*, Massachusetts, Ballinger Cambridge, 1984, Chapter 2; L.W. McNaught, *Nuclear Weapons and their Effects*, London, Brassey's Defence Publishers, 1984, Chapters 1 and 2; and *The Nuclear Almanac: Confronting the Atom in War and Peace*, Addison-Wesley, 1984, Chapters 10 and 24.

## CHAPTER 7

## THE SPREAD OF NON-NUCLEAR WEAPONS

7.1 The spread of nuclear weapons and the fear of a nuclear holocaust has tended to overshadow the continuing development and proliferation of increasingly complex and destructive conventional weapons throughout the world. Since the end of the Second World War, between 4 to 7 per cent of the world's GNP has been devoted to military expenditure, where the major portion of this sum - around 75 per cent - has been spent on conventional armaments and forces. Annual global military spending is now thought to exceed \$US900 billion, more than half of which is spent by the two major alliances (see Chapter 8).

7.2 Over this period, the continuing superpower competition and traditional regional tensions and disputes have contributed to a continuing build-up of conventional military forces and capabilities in most areas of the world. According to the United Nations' Study on Conventional Disarmament:

The world's armed forces at present are estimated to total more than 25 million military personnel. That total excludes para military forces, reservists and non-military personnel engaged directly or indirectly in military-related activities, whose number considerably exceeds the numbers of military personnel. Rather than decreasing during periods of comparative peace as was generally the case up to the Second World War, the size of the world's regular forces has increased by more than 30 per cent over the last 20 years.<sup>1</sup>

7.3 The overwhelming proportion of the world's conventional arms and armed forces are under the control of the two major alliances, with the greatest concentration located in Europe. The International Institute for Strategic Studies reported that in 1985, NATO and the Warsaw Pact had between them over 11 million uniformed personnel, 72 000 main battle tanks, 13 000 aircraft, 900 surface warships and 360 cruise missile or attack submarines deployed in and around Europe.<sup>2</sup>

7.4 Both the Soviet Union and the United States maintain very large armed forces which are being steadily upgraded and modernised. In addition to its conventional forces in Europe, the Soviet Union has steadily increased the size and capability of its conventional military forces in the Far East such that they are now second only to the forces confronting NATO. The Soviet Union has also expanded its security infrastructure in the region. Where it once concentrated virtually all of its forces at base complexes at Vladivostok and the nearby port of Nakhoda, the Soviet Union now has substantial bases at Korsakov, Sovetskaya Gavan and Petropavlovsk in the Far East, with lesser facilities in Danang and Cam Ranh Bay in Vietnam, Dahlak in Ethiopia and Aden in South Yemen.<sup>3</sup>

7.5 The expansion of Soviet military capabilities has led the United States and its allies to build up their own forces in the region. South Korea increased its military expenditure nearly twofold between 1978 and 1982. Japan's defence expenditure in 1985 was \$US11.9 billion (in 1980 prices) and, under pressure from the United States, it is steadily upgrading the capacity of its defence forces. Fear of growing Soviet influence in the region has led most ASEAN nations to modernise their defence forces and give greater priority to the development of conventional military capabilities over those required for traditional counter-insurgency operations.

7.6 The war in Afghanistan and continuing poor relations between India and Pakistan have contributed to a continuing military build-up in the area with a major influx of weapons. Both India and Pakistan continue to spend considerable amounts on defence (\$US6.1 billion and \$US2.2 billion in 1985 respectively - in 1980 prices) and both maintain very large standing armies. The United States is giving Pakistan more than \$1 500 million in military assistance in the coming five years which will include delivery of 40 advanced, all-weather multipurpose F-16 fighters.<sup>4</sup> India is continuing to buy modern armaments from the Soviet Union including MiG-23 aircraft, T-64 tanks, frigates, gunboats and anti-tank missiles. India is also purchasing advanced military equipment from the United Kingdom, France, Italy and West Germany.

7.7 In Latin America, according to the SIPRI Yearbook 1984 the strength of military forces in the region has grown roughly in line with the growth of population, with military assistance programs provided by the superpowers making a major contribution to the arming of the Isthmus countries and Cuba. In the past 20 years, the imports of major weapons by Latin and South American countries have grown by around 8 per cent per annum compared with 6 per cent for other goods and services. Most countries in the region have continued to maintain relatively high levels of defence expenditure despite, in some cases, quite serious economic and debt problems stemming from the recent recession. Imported weapon systems within the region are growing increasingly sophisticated: since the mid-1960s, Latin and South American countries have acquired supersonic fighter aircraft, submarines, guided missile frigates and medium tanks. Most countries have simultaneously developed the capacity to produce locally small arms and ammunition and at least eight countries (Argentina, Brazil, Chile, Colombia, Ecuador, Mexico, Peru and Venezuela) have become producers of major weapons.

7.8 In Africa and the Middle East, military spending is dominated by Saudi Arabia which spent \$27 billion on arms in 1982. Military spending is rising fast in some of the smaller states including Iraq, Libya, Morocco, Oman, North and South Yemen and the UAE. A number of countries in the region are receiving substantial aid from either the Soviet Union or the United States in return for either access to air or port facilities within the region. The SIPRI Yearbook 1984 reports

that the outbreak of the Gulf War has led to a large build-up of the military forces of Iran and Iraq. The weapons come from a diverse range of suppliers, a number of them providing weapons to both sides. The weapons include MiG, Mirage and Super Etendard combat aircraft, a range of ground attack helicopters, main battle tanks and numerous missile systems including the Exocet, SA-6, SA-8 and the Italian Aspide. SIPRI concludes that a massive rearmament process is likely to emerge in Iraq and Iran once the war ends and that it will lead to a regional arms race, particularly in the field of high-technology weaponry.<sup>5</sup>

#### The Arms Trade

7.9 The spread of conventional weapons is reflected in the size and scope of the international arms trade. The values and respective shares of the export arms market over the period 1981 to 1985 have been calculated by SIPRI and are shown in Table 7.1. SIPRI notes that the international arms trade has tended to stabilise over the past few years, due principally to the poor economic performance of many leading arms-importing countries, and, as a result, it considers that 'the possibilities for establishing a regime to control and limit future arms transfers may be improved'.<sup>6</sup> The growth in the arms trade has not only been a quantitative one. Countries have increasingly demanded, and received weaponry as advanced as the equipment used by the exporter's domestic forces.

7.10 The SIPRI figures show that the United States and the Soviet Union remain by far the largest exporters of conventional arms, supplying over two thirds of the total arms exports. The Soviet Union is the largest supplier to the Third World, while the United States leads in supply to the industrialised nations. SIPRI notes however that the U.S.A:

has about twice as many recipients in the Third World and it has granted about five times as many production licences. This shows that countries that receive weapons from the Soviet Union are getting them in very large numbers. Syria is currently the obvious case in point. The USA's smaller proportion going to the Third World is explained by the large number of weapons produced under US licence by West European and Japanese arms manufacturers.<sup>7</sup>

7.11 The value of Soviet and U.S. arms transfer agreements, and the number of major weapons delivered to the Third World over the period 1972 to 1981 are shown in Tables 7.2 and 7.3. It can be seen that Soviet military transfers generally contain larger quantities of basic hardware than do United States' transfers. This is because Soviet weaponry sold abroad is generally less sophisticated than comparable American equipment. In addition, while the United States sells fewer weapons, it provides a wider range of support items such as

Table 7.1. The leading major weapon-exporting countries: the values and respective shares for 1981-5.

Figures are SIPRI trend indicator values, as expressed in US\$m., at constant (1975) prices: shares in percentages. Figures may not add up to totals due to rounding.

Country	1981	1982	1983	1984	1985	1981-5	Per cent of total exports to Third World, 1981-5
USA	5 325 39.2	5 726 40.4	5 425 40.6	4 995 36.1	4 187 36.5	25 659 38.7	44.3
USSR	3 905 28.8	4 095 28.9	3 233 24.2	3 613 26.1	3 460 30.2	18 306 27.6	74.1
France	1 454 10.7	1 274 9.0	1 410 10.6	1 553 11.2	1 319 11.5	7 010 10.6	80.5
UK	536 4.0	638 4.5	494 3.7	825 6.0	654 5.7	3 146 4.7	66.3
FR Germany	487 3.6	325 2.3	639 4.8	790 5.7	420 3.7	2 662 4.0	61.6
Italy	545 4.0	695 4.9	396 3.0	460 3.3	405 3.5	2 501 3.8	93.9
Third World	409 3.0	454 3.2	764 5.7	510 3.7	297 2.6	2 434 3.7	95.5
China	161 1.2	252 1.8	255 1.9	555 4.0	293 2.6	1 516 2.3	95.3
Others	737 5.4	701 5.0	729 5.5	523 3.8	423 3.7	3 111 4.7	67.3
TOTAL	13 559	14 160	13 345	13 824	11 458	66 345	64.1

Sources: SIPRI Yearbook 1986, p.324

training, maintenance facilities and other non-weapon equipment, which increases the total transfer value.

7.12 According to Michael Klare of the Institute for Policy Studies in Washington,<sup>8</sup> the major factors motivating Soviet arms exports to the Third World are:

- a. Political presence. One of the only ways the Soviet Union can establish ties with Third World states is through the provision of armaments. It has very little to offer in the way of trade, investment and technology whereas armaments can be provided relatively cheaply and in abundant numbers;
- b. Superpower competition. The Soviet Union uses arms transfers to establish military alliances with key Third World nations and to woo other countries away from its rival;
- c. Sino-Soviet competition. Since the Sino-Soviet split in 1960, the Soviet Union has vied with China for the loyalty of a number of national liberation movements and radical or Marxist regimes particularly in South East Asia and Africa;
- d. Acquisition of basing facilities. The Soviet Union has used arms transfers to establish military basing facilities in strategic areas as a means of extending its global and regional influence and reach;
- e. Political insurance. Soviet military aid is often maintained in order to retain some leverage over the recipient state, such as Syria, even if the state does not always operate in the Soviet interest; and
- f. Source of hard currency. Since 1970, the Soviet Union has placed increasing emphasis on cash transactions while cutting back on grant aid programs. This shift reflects a concern over a growing trade imbalance with the Third World and the need for hard currency with which to purchase Western technology.

Taken together, these factors ensure a high and continuing Soviet interest in exporting arms to the Third World. While Moscow was highly successful in boosting arms exports in the 1970s, Soviet arms exports have declined since 1980. The exact reasons for this are unclear but are partially due to the fact that some of the Soviet Union's clients, such as India and Iraq, have decided to diversify their arms imports in order to reduce their dependence on any one supplier, and to the fact that the Soviet Union has in recent years failed to attract many new customers.

7.13 Nonetheless, Soviet arms transfers remain substantial. Whether they significantly extend Soviet global and regional influence and pose a major threat to United States and Western interests is a matter of some debate. The Reagan Administration has consistently argued that Soviet arms transfers have extended Russian influence into regions where it previously had little or

Table 7.2 Soviet and U.S. arms transfer agreements with Third World nations, 1972-1981 (current U.S. dollars in millions)

Year	Soviet Union		United States		Total
		Weapons	Construction and Services		
1972	2 350	3 710	1 094	4 804	
1973	3 230	5 390	2 530	7 920	
1974	5 970	7 700	1 830	9 530	
1975	3 670	4 420	6 080	10 500	
1976	6 610	5 420	7 020	12 440	
1977	9 750	3 720	2 700	6 420	
1978	2 920	4 520	2 950	7 470	
1979	8 880	4 910	3 990	8 900	
1980	14 770	5 040	5 440	10 480	
1981	6 630	3 310	1 640	9 950	
1972-1981	64 870	48 140	35 274	83 414	

Source: U.S. Department of State, Conventional Arms Transfers in the Third World, 1972-1981, Washington, D.C., 1982. Quoted in Michael T. Klare, "Soviet Arms Transfers to the Third World", Bulletin of The Atomic Scientists, May 1984, p.27.

Table 7.3 Deliveries of major weapons to the Third World by the United States and the Soviet Union, 1974-1981

Weapons type	United States	Soviet Union
Tanks and self-propelled guns	6 256	10 230
Artillery	5 906	14 375
APC and armoured cars	12 511	12 055
Major surface combatants	84	40
Minor surface combatants	117	168
Submarines	14	15
Supersonic combat aircraft	1 322	3 075
Subsonic combat aircraft	659	420
Other aircraft	1 268	470
Helicopters	635	1 150
Guided missile boats	0	74
Surface-to-air missiles (SAMs)	7 445	20 010

Source: Congressional Research Service, U.S. Library of Congress, Trends in Conventional Arms Transfers to the Third World by Major Supplier, 1974-1981, Washington, D.C., 1982. Quoted in Michael T. Klare, "Soviet Arms Transfers to the Third World", Bulletin of The Atomic Scientists, May 1984, p.28.



no interest and that they imperil the security of pro-Western nations. The official U.S. publication, Soviet Military Power 1985, for example, states that:

The Soviets have been persistent in their efforts to gain influence and deter Western access to the Third World ... In addition to deployed forces, the Soviets have developed a variety of instruments to gain access and influence, including treaties of friendship, military assistance, the use of proxies, naval port calls, visits by high-level dignitaries, limited economic aid, propaganda and covert activities. Military assistance has been the most effective Soviet foreign policy instrument.<sup>9</sup>

On the basis of these concerns, the U.S. has continued to supply considerable quantities of arms and other military aid to the Third World as part of its Foreign Military Sales and Foreign Military Construction Sales programs. Recent U.S. arms packages have included highly sophisticated weapons systems such as the F-16 and AWAC aircraft, M-60 tanks and AGM-65B Maverick air-to-ground missiles.

7.14 Critics of this view argue that while Soviet arms exports have increased its political access to the Third World they have not provided lasting political influence as evidenced by their failures in Egypt, Iraq and Somalia and continuing problems in Algeria, Angola and Syria. Michael Klare, for example, suggests that analysis of Soviet arms programs in the Third World shows 'that the record is strewn with more failures than successes' and that continuing arms transfers pose a number of dilemmas for the Soviet leadership.

On the one hand, Soviet leaders evidently feel compelled to maintain costly programs of dubious benefit rather than face the complete loss of a hard-won client relationship. On the other, they fear that continued support for unpredictable and uncontrollable recipients could result in direct Soviet involvement in risky military ventures abroad.<sup>10</sup>

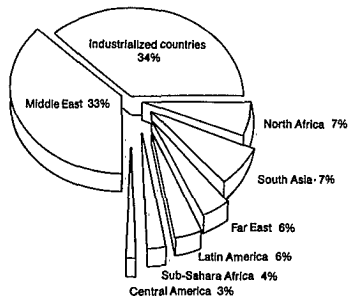
Klare concludes that on the basis of these concerns, the Soviet Union may be prepared to re-open the U.S.-Soviet Conventional Arms Transfer (CAT) talks of 1977-78 which aimed at securing multinational restraints in this area, but which fell foul of the general decline in relations between the two superpowers.

7.15 While the U.S. and the Soviet Union remain the major arms exporters, there has been a gradual shift since the end of the Second World War in the pattern of trade in conventional weapons from near monopoly to increasing competition in arms supply. This new position is characterised by a growing number of suppliers of weapons of all kinds, and a shift towards a buyers' market. In addition to the other major arms exporting countries such as France, the United Kingdom, Italy and West Germany, the Soviet Union and the United States are now competing with a new class of second-tier suppliers including China, Czechoslovakia, Spain, Sweden, Switzerland, Israel, North Korea and Singapore. Many of these countries have tended to specialise in the manufacture of rugged, low-technology hardware that is suited for use in undeveloped areas and thus their products have found a ready market in the Third World. Moreover, the Third World countries taken together are slowly increasing their share of total arms exports and they now account for 5.5 per cent of Third World imports.<sup>11</sup> In addition, considerable amounts of weapons continued to be sold on the 'black market', involving private dealers who operate on the fringes of the official, government-sanctioned military trade. Black market arms suppliers are prominent in the Lebanon, Central America, South Africa and the Persian Gulf.

7.16 A second important trend has been the shift from the transfer of surplus or outdated weapons to the transfer of up-to-date weapons, in some cases even at the expense of domestic procurement. The principal reasons for this, according to the United Nations' Study on Conventional Disarmament,<sup>12</sup> are first, the very high development costs of modern weapons, which lead many producers to seek external purchasers in order to help amortise some of the expense. Secondly, the extension of production lines helps reduce the unit costs to the armed forces of the producing countries themselves. It also eases the problems of providing continuing maintenance and spares support through the life of the weapon and its associated equipment, and helps finance further research and development. Third, the sale of high-cost, highly sophisticated weapons systems can improve a nation's balance-of-payments position as a whole or vis-a-vis some of the major recipients. And fourth, it reflects the increasing competitiveness of the arms trade and a desire of many importing countries to acquire the most modern and efficient weapons available in order to maintain national security. Thus the conventional arms race has become both a quantitative and qualitative one. In recent years as the effects of the international economic recession have increased, there has been some de-emphasis on the acquisition of high technology hardware, with many nations ordering less sophisticated equipment than in the past. Manufacturers have quickly moved to satisfy this growing demand.

7.17 The shares of world imports of major weapons for the period 1980 to 1984 are shown in Figure 7.1. The two largest groups of importers comprise the industrialised countries and those of the Middle East. About 65 per cent of total arms flow consists of imports by the Third World, although SIPRI reports that the rate of growth of this share is slowing down.<sup>13</sup>

Figure 7.1: Share of world imports of major weapons 1980-84



Source: John Turner and SIPRI, *Arms in the '80s: New Developments in the Global Arms Race*, Taylor and Francis, London and Philadelphia, 1985, p.71.

Table 7.4 Rank order of the 20 largest Third World major weapon-importing countries 1981-5

Percentages are based on SIPRI trend indicator values, as expressed in US \$m., at constant (1975) prices. Rank order for the period 1980-4 is given in brackets.

Importing country	Percentage of total Third World imports	Importing country	Percentage of total Third World imports
1. Iraq (3)	13.7	11. Pakistan (12)	2.2
2. Egypt (1)	10.3	12. Cuba (8)	2.1
3. Syria (2)	7.8	13. Nigeria (16)	1.8
4. India (4)	7.4	14. Algeria (18)	1.8
5. Libya (5)	6.0	15. Venezuela (20)	1.6
6. Saudi Arabia (6)	5.5	16. Morocco (14)	1.5
7. Israel (7)	3.9	17. Angola (-)	1.5
8. Argentina (9)	3.5	18. Peru (17)	1.4
9. Jordan (10)	2.5	19. Kuwait (-)	1.3
10. Taiwan (11)	2.4	20. Iran (-)	1.2
		Others	20.6
		Total	100.0
		Total value	42 516

Source: SIPRI Yearbook 1986, p. 344

The Middle East accounts for 50 per cent of all Third World arms imports. The twenty largest Third World major weapon importing countries are listed in Table 7.4. The six highest-ranking Third World importing countries - Iraq, Egypt, Syria, India, Libya and Saudi Arabia - account for nearly fifty per cent of the total.

7.18 SIPRI reports<sup>14</sup> that international efforts to limit the global arms trade, such as the unilateral restrictions adopted by the Carter Administration in 1977 and the U.S.-Soviet Conventional Arms Transfer (CAT) Talks, have come to a virtual halt. There appears to be little prospect of any significant control of arms transfers while global and regional tensions remain high. Moreover, the shift in market dominance from a handful of major suppliers to a larger group of second-tier suppliers and black marketeers will complicate further the task of negotiating arms transfer restraints.

#### The Consequences of the Continuing Spread of Non-Nuclear Weapons

7.19 The continued quantitative and qualitative spread of conventional weapons poses a number of political, military, economic and social problems to mankind. The economic consequences of high military expenditure are discussed in the following chapter. In political and military terms, the continued proliferation of conventional weapons and weapons-production capabilities increases global and regional tensions and undermines stability as nations arm to defend themselves against potential aggressors. They are also causing enormous destruction and suffering through military conflicts that have continued to take place across the globe.

7.20 These problems are particularly acute in the developing world where regional tensions, military conflicts and counter-insurgency warfare are already endemic. Since the Second World War, virtually all parts of the Third World have suffered the ravages of conventional warfare. As the Foreign Minister, Mr Hayden, stated in his 1983 Evatt Memorial Lecture:

The period since the end of World War II has been characterised by almost unceasing conflict and violence in the world. Experts agree that it is difficult to define what constitutes a war, but whatever definitions are used, the record since 1945 has been appalling. A study in 1972 listed 97 wars for the period 1945-69. The total duration of these conflicts exceeded 250 years and there was not a day in which one or several wars was not being fought somewhere in the world. By 1980, according to the Stockholm International Peace Research Institute, the number of conflicts since 1945 had risen to 133, and there have been several further outbreaks of conflict since then ... in the South Atlantic, between Iran-Iraq, in Central America, Chad, Lebanon - the list goes on and on. The number of persons killed in warfare since 1945 now amounts to tens of millions ... these conflicts were fought almost exclusively in and by the Third World with weapons supplied by both industrialised and developing countries.<sup>15</sup>

7.21 Such wars have caused untold suffering and hardship for the indigenous population both during the conflict and in its aftermath. Villages and townships have been devastated, people's livelihoods have been destroyed and millions have been forced to resettle in other states or makeshift refugee camps. In the wake of war, whole populations have been uprooted, political and social institutions have been changed and many nations have experienced severe famine or decline in living standards. New rulers have tended to spend too much of what limited resources remained on arms rather than on economic and social improvements.

7.22 The potential devastation of modern conventional war is also increasing in light of continuing developments and spread of new weapon systems. Recent developments such as fuel-air explosives, precision-guided munitions and target acquisition technologies are revolutionising conventional warfare by increasing the vulnerability of large targets, making military systems more efficient and enhancing the destructiveness and intensity of battle. Future conventional wars are likely to be weapon oriented, highly destructive, sudden in character and of relatively short duration. Equipment and weapon attrition rates will be high and both military and civilian casualties are likely to be significant. Faced with these trends, nations will be required to spend more on preparing for war. More importantly, the furious pace and intensity of conflict will mean that the pressures to escalate will be greater. Increasingly, nations will not have the time to contemplate events, to assess the results of battle or to seek peaceful settlements. Knowing that war cannot be sustained for long, they may feel compelled to escalate quickly in order to gain a quick advantage or at least prevent their adversary from doing so.

7.23 Qualitative developments in both nuclear and non-nuclear weapons systems are beginning to blur the previous clear distinction between the two. These changes include:

- a. The deployment of subkiloton nuclear munitions (including radiation-reduced warheads) which can be tailored to specific military actions (such as anti-tank defence, artillery barrage and demolition charges). Thus nuclear weapons are able to be used in conventional roles;
- b. the development and deployment of non-nuclear weapons of mass destruction such as chemical, biological and radiological weapons, including the possibility of placing such warheads on ballistic missiles;
- c. the deployment of conventional explosive weapons which provide similar capabilities to low-yield tactical nuclear weapons. These include so-called area weapons such as fuel-air explosives and cluster bombs as well as blast-optimised high-explosive warheads;

- d. the increasing ability to use conventional precision-guided munitions to attack and destroy hardened military targets including nuclear weapons. The development of common delivery systems for both conventional and nuclear weapons provides an important means of reducing costs through utilising common maintenance and support systems;
- e. the increasing integration of tactical nuclear weapons into the conventional military force structures and doctrines of both sides; and
- f. the increasing commonality of supporting command, control, and communications (C3) systems and components for both strategic and tactical use.

7.24 There is considerable debate over the implications of these developments. A number of commentators suggest that advanced conventional weapons could be used to replace tactical nuclear weapons or improve conventional force potentials, particularly in the West, and thereby raise the nuclear threshold. Moreover, stronger conventional forces are likely to deter conventional aggression thereby eliminating the need to resort to nuclear weapons. On the other hand, others suggest that such changes will lower the nuclear threshold and increase the risks of nuclear war occurring particularly during a conventional conflict.

As more and more of the militarily valued effects available from nuclear weapons come to be provided by a variety of non-nuclear means, a non-nuclear battle field may come closer to resembling a nuclear one, even to the point where it would seem to make no great practical difference initiating nuclear war.<sup>16</sup>

Furthermore, new technologies such as better battlefield surveillance and target acquisition are making all kinds of targets (including nuclear or dual-capable targets) more vulnerable to attack. The likely destruction of these latter targets in the early stages of a conflict may hasten a decision to use them before it is too late.

7.25 Probably both arguments are correct. The key issues in the nuclear threshold debate are the location of nuclear weapons close to military borders and the increasing integration of nuclear and conventional weapons. Both these factors increase the risks of conventional conflict quickly escalating into nuclear war and have been the focus of a number of proposals, in Europe and elsewhere, to establish nuclear disengagement zones between nuclear adversaries. It should be noted however, that the notion of a nuclear threshold is largely Western in origin, designed to deter Soviet aggression in Europe. As noted in Chapter 2, Soviet doctrine, by contrast, seems to presuppose the use of all available means of warfare once conflict has begun and it posits a force structure in which tactical nuclear weapons and conventional forces act to mutually support and reinforce each other.

7.26 A number of submissions to the inquiry have expressed concern over the expanding international arms trade in conventional weapons. The Women's International League for Peace and Freedom submitted that continuing arms transfers to developing countries have directly contributed to many of the armed conflicts that have occurred since the end of the Second World War. The League stated that:

It is a matter of regret that Australia takes part in this sort of inhuman trade. We recommend strongly that a sober and thorough examination of Australian trade in arms to countries in our region be initiated, with a realistic view of the final destination of these products.<sup>17</sup>

It saw continuing Australian trade in weapons and military capabilities as being inconsistent with the Australian Government's efforts to achieve universal disarmament, and recommended that Australia 'express at international forums its opposition to the vast expenditure on arms manufacture and arms transfer' and phase out the sale and transfer of weapons to other nations in our region.

7.27 Similar views were expressed by the NSW Branch of People for Nuclear Disarmament and the Quakers Peace Committee in Hobart. PND supported the recommendations made by the Australian Council for Overseas Aid in its recent submission to the Senate Standing Committee on Foreign Affairs and Defence. In that submission, ACFOA suggested that 'a fundamental cause of insecurity in the region is the political instability arising out of economic and social instability. Defence cooperation does not and cannot address these fundamental causes of instability'.<sup>18</sup> The Quakers Peace Committee argued that arms sales to the Third World 'adversely affect small economies which struggle to obtain sufficient resources to meet basic needs' and that the arms that are transferred are often used for internal repression. It cited evidence that in 1981, Australia was the twelfth largest exporter of arms to the Third World, and urged the Australian Government to reconsider its policy of arms sales to Papua-New Guinea and other small nations in the South Pacific.<sup>19</sup>

7.28 Australia currently provides arms and other military assistance to countries in our immediate region under the Defence Cooperation Program (DCP). According to evidence submitted by the Department of Defence to the Senate Standing Committee on Foreign Affairs and Defence, the principal objective of the DCP is:

... to promote the national independence of participating countries. The programs represent a practical expression of our interest in regional security and promote contacts with the governments and defence forces of countries with which we have shared

strategic interests. By contributing to security in our neighbouring regions, these programs strengthen Australia's own security and thus constitute part of our national defence effort.<sup>20</sup>

7.29 The Senate Standing Committee's recent Report, Australia's Defence Cooperation with Its Neighbours in the Asian-Pacific Region, noted that the DCP served a number of other, non-military, purposes:

- a. to round out and advance bilateral relationships in which defence links form a part of the friendly and cooperative association with other countries;
- b. to promote political stability and economic growth in the region through civil aid projects where they take place under the program; and
- c. to foster friendly attitudes towards Australia on a popular level.<sup>21</sup>

7.30 In line with these broad objectives, the program is directed towards a number of countries and covers a wide range of assistance including training - both locally and in Australia - the provision of specialist advice and skills, and the provision of weapons and equipments. Not all the projects sponsored under the Defence Cooperation Program can be categorised as military assistance. The Senate Standing Committee's Report noted that in 1983-84 'some 16% of the program was of a civil nature'.<sup>22</sup> The Report further found that the DCP 'is not a suitable means of promoting defence industries'. It did conclude, however, that the failure of the Departments involved 'to spell out clearly the objectives, purposes and criteria of the program raises questions about the clarity of these objectives and the effectiveness of the program in achieving them'.<sup>23</sup>

7.31 The detailed figures contained in the Senate Standing Committee's report also indicate that only a relatively small proportion of DCP expenditure is on armaments or military hardware. Table 7.5 shows a breakdown of DCP expenditure for the period 1978 to 1983, together with an estimate of the amount spent on military equipments. Of a total expenditure of some \$176 million dollars, around \$40 million or less than 23 per cent was on military equipment. These were primarily aircraft, naval vessels, land vehicles and radio/electronic equipment. The major portion of this latter amount - over \$34 million - was on equipment for Indonesia and PNG. Only very small amounts of equipment or armaments have been supplied to other ASEAN or South Pacific nations.

7.32 The Australian Government has registered its concern over the continued spread of conventional weapons. In a speech given at the University of Western Australia on 18 January 1984, Mr Hayden described the build-up of weapons and the dimensions of the arms trade and stated that Australia:

Table 7.5 DCP Assistance to ASEAN, PNG and South-West Pacific

Country Region	Yearly Expenditure \$M (1)			Estimated Expenditure on Military Equipment/Armaments (2)		
	1978/79	1979/80	1980/81			
	1981/82	1982/83				
<b>ASEAN</b>						
Malaysia	3.963	2.876	3.909	3.945	4.859	0.888
Singapore	0.394	0.699	1.175	1.236	1.584	-
Indonesia	7.183	9.589	11.935	8.627	11.784	25.875
Thailand	0.053	0.107	0.650	1.206	3.189	2.159
Philippines	0.090	0.804	1.161	1.917	1.520	0.037
Others	0.048	0.087	0.247	0.114	0.412	-
Sub-Total	11.731	14.162	19.077	17.054	22.408	28.959
<b>SOUTH-WEST PACIFIC</b>						
PNG	11.511	14.178	15.240	16.654	17.280	8.280
Fiji	0.553	0.605	0.498	1.160	0.961	0.321
Tonga	0.069	0.221	0.744	0.748	3.322	0.332
Solomon Is.	0.700	0.120	0.701	0.701	1.242	0.999
Vanuatu	-	-	0.893	0.282	0.546	1.721
Kiribati	-	-	-	0.148	0.219	0.367
Western Samoa	-	-	-	0.003	0.031	-
Sub-Total	12.833	15.124	17.791	19.696	20.621	10.208

Notes: 1. Expenditure does not include general assistance categories. Total DCP expenditure for 1978-83 was \$176.441 million.

2. Weapons or equipments that could be used by nations armed forces.

Source: Figures extracted from Australia's Defence Co-operation with Its Neighbours in the Asian-Pacific Region, 1984, Appendices 1, 2 and 6.

.. Will be more active in the search for ways to reduce this flow of arms. Action will be taken aimed at stopping black market trade in arms. Military budgets must be reduced. As I indicated in my speech to the UN General Assembly we consider these three goals are ideal subjects for consideration by the United Nations. We will be promoting action accordingly.<sup>24</sup>

7.33 This concern was echoed by Australia's Ambassador for Disarmament, Mr Richard Butler, who informed the Committee that Australia is presently 'considering some possible future initiatives we may be able to take in this field' particularly 'in conjunction with others'.<sup>25</sup>

7.34 At present, Australia's activities in this area are confined to supporting the United Nations' study into seeking the reduction of military budgets world-wide. This support was described in the Department of Foreign Affairs' submission as follows:

... Australia makes available to the United Nations' Secretary-General each year the details of its military expenditure in the form of a standardised reporting instrument which has been developed by the UN. It is one of few countries willing to do so. The Government is also cooperating with a United Nations study group which has been established to work out ways and means of making valid international comparisons of military budgets. Positive and acceptable results from this group will be essential if the problems of standardising the meaning of military expenditures, of comparing prices cross nationally and of monitoring agreed reductions, which have plagued past proposals to reduce military budgets, are to be overcome.<sup>26</sup>

In addition:

The Government has also agreed to provide to the United Nations' Secretary-General a summary of information about Australia's military capability which is already in the public domain. It believes that improved transparency of information and hence of understanding about the range of defence and military activities throughout the world will assist in the development of an international climate of confidence and trust which is essential for progress in any negotiations and especially in the arms control area.<sup>27</sup>

7.35 The UN study is not well advanced. As a Department of Defence witness informed the Committee,<sup>28</sup> there are at present only ten countries that have agreed to participate in it - the United States, the United Kingdom, Canada, the Federal Republic of Germany, Italy, Austria, Norway, Sweden, Finland and Australia - and at present it is concerned only with establishing a data

base. The question of how this information would be used to inhibit or reverse the spread of conventional weapons has still to be considered.

7.36 Australia's major and continuing efforts in the area of limiting the spread of non-nuclear weapons have been directed towards chemical weapons.

#### Chemical and Biological Weapons (CBW)

Gas! GAS! Quick, boys! - An ecstasy of fumbling,  
Fitting the clumsy helmets just in time;  
But someone still was yelling out and stumbling,  
And flound'ring like a man in fire or lime...  
Dim, through the misty panes and thick green light,  
As under a green sea, I saw him drowning.

- Dulce Et Decorum. Est  
Wilfred Owen

7.37 The universal abhorrence of chemical and biological weapons (CBW) has its origins in the large-scale use of poison gases in the First World War where estimates of chemical warfare casualties ranged from hundreds of thousands to more than a million. The devastation of the Great War led to the establishment of a comprehensive CBW arms control regime which has, to date, prevented any further large-scale use of such weapons, although there have been instances of poison gases and other agents being used in localised conflicts.

7.38 In recent years, there has been a renewed interest in chemical and biological weapons. A number of expert commentators now fear that the earlier predisposition against these weapons is being eroded by the development of new weapons and associated technologies, by new perceptions of their military utility, and by their alleged usage in Indo-China, the Iran/Iraq war and elsewhere. These factors are leading both superpowers to upgrade their CW arsenals in what could be the beginning of a CW arms race and to the spread of such weapons to other nations. They are also threatening to subvert the existing CBW arms control regime which, to date, has been most effective in limiting CBW development and use.

7.39 The concern over chemical and biological weapons stems from the fact that they are weapons of mass destruction which are capable of posing a similar threat to human life as that by nuclear weapons. They do not present long-term effects such as nuclear fallout, however, nor do they destroy buildings, factories or wealth. They are also less costly to develop than nuclear weapons and are within the technical capability of any country with a relatively advanced petrochemical or insecticide industry. Chemical or biological weapons could represent a cheaper alternative for nuclear weapons for less advanced nations and as such have a significant proliferation potential. They would also appear to represent 'ideal' terrorist weapons.

7.40 Chemical weapons (CW) agents have been defined by the United Nations<sup>29</sup> as 'chemical substances, whether gaseous, liquid or solid, which might be employed because of their direct toxic effects on man, animals and plants'. The common lethal chemical and biological weapons or agents are shown in Table 7.6. Modern chemical weapons use organo-phosphorous compounds known as nerve gases (or nerve agents) which are chemically related to certain pesticides but are much more toxic. Nerve gases are stored as liquids and are released from munitions either as a cloud of vapor or as a spray of liquid droplets. They enter the body by inhalation or absorption and work by inhibiting a key enzyme needed to control muscle movement. Death follows from asphyxia due to paralysis of the respiratory muscles. For field use, nerve gases are encapsulated in artillery projectiles, missile warheads, aircraft cluster-bombs and land-mines. Older-type chemical agents used in the First World War and stockpiled for use in the Second (such as chlorine, phosgene and mustard gas) are now considered obsolete by the forces of developed countries, but large stocks remain in their inventories and some stocks appear to have found their way into the Third World. Primary protection against chemical warfare agents is given by gas masks and protective clothing. CW agents also include so-called 'toxins' which are toxic substances normally produced by a living organism. Toxins are included under the CW rather than BW category because they are inanimate and incapable of multiplying.

7.41 A recent, and alarming, development in CW technology is that of binary weapons.<sup>30</sup> These comprise bombs or missile warheads filled with separate and much less toxic chemicals designed to mix and react with each other so as to produce the nerve gas when the missile is on the way to its target. Binary weapons do away with the need for expensive and dangerous super-toxic chemical factories and have sufficiently enhanced storage and handling safety to allow combat units to carry supplies with them.

7.42 Biological weapons or agents are living organisms 'intended to cause disease or death in man, animals and plants, and which depend for their effects on their ability to multiply in the person, animal or plant attacked'. They include the bacterial and viral agents causing anthrax, brucellosis, encephalomyelitis and psittacosis. Biological agents are grown in liquid and were originally available only as 'liquid biologicals', in which water is 75 per cent of the cellular substance. In the 1950s, a method was developed for preserving certain agents through a freezing and drying process, thus facilitating their dispersal by bombs, 'bomblets', missiles and artillery projectiles.

7.43 Recent developments in genetic engineering are giving scope for further developments in biological warfare. According to a recent report in the *Bulletin of the Atomic Scientists*,<sup>31</sup> the number of unclassified government sponsored projects in the United States using recombinant DNA and hybridoma technology rose from none in 1980 to over 100 in 1984. This work is aimed at a wide range of uses including (1) development of vaccines against a variety of bacteria and viruses, particularly those deemed to

Table 7.6 Common Lethal Chemical and Biological Weapons

Chemical Weapons			
Agents	Mechanism	Speed of Action	Lethal Dose (Approx)
Nerve Agent G (e.g. Tabun, Sarin, Soman)	Interferes with nervous system	Seconds, by inhalation	0.5-1mg
Nerve Agent V (e.g. VX)	Interferes with nervous system	Seconds by inhalation, minutes to hours through skin	0.4mg
Blister Agent (e.g. Mustard Gas)	Cell poison	Hours or days but eyes affected more quickly	
Choking (e.g. Hydrogen cyanide, phosgene)	Damages lungs	Immediate or up to three hours	
Toxins (e.g. Botulinus)	Neuromuscular paralysis	Hours or days depending on dosage	
Biological Weapons			
Agents	Diseases	Incubation Period (days)	
Viruses	Tick-borne encephalitis	5-15	
	Yellow fever	3-6	
Rickettsiae	Rocky Mountain spotted fever	3-10	
	Epidemic typhus	6-15	
Bacteria	Anthrax	1-5	
	Cholera	1-5	
	Pneumonic plague	2-5	
	Typhoid	7-21	

Source: Adapted from John Cox, *Overkill: The Story of Modern Weapons*, Pelican, 1981, pp 62 and 64.

be of military importance; (2) methods of rapid detection and identification of biological and chemical warfare agents; (3) antidotes to bacterial and fungal toxins; and (4) the study of the structure of toxin genes by cloning them in bacteria. At present, the work is oriented towards obtaining greater information about potential biological weapons and devising defences against them. It raises the question, however, of whether the discoveries could also lead to the development of new weapons or agents. Genetic engineering and recombinant DNA technology also raises the prospects of the development of new toxins, as well as so-called 'ethnic weapons' which would 'employ differences in gene frequencies among specific population groups to incapacitate or kill a selected "enemy" population to a significantly greater extent than a selected "friendly" population'.<sup>32</sup>

#### Current Arsenals<sup>33</sup>

7.44 At the end of the Second World War, more than a dozen states possessed stocks of the latest chemical weapons. Now only three states are known to possess militarily significant stocks of chemical weapons, although some dozen or so countries outside the NATO/Warsaw Pact nations are thought to possess some small stocks of chemical weapons.<sup>34</sup> The major holders of chemical weapons are the United States, the Soviet Union and France. In recent years there has been growing concern that these states are beginning to build up their CW arsenals, leading to speculation of an impending CW arms race. In addition, there have been many claims of chemical and toxin agents being used by Soviet forces and Soviet client states in Laos, Kampuchea and Afghanistan. Chemical weapons are also alleged to have been used in Angola, Vietnam, Eritrea and El Salvador (see Table 7.7). In the most recent incident, chemical weapons were used by Iraq against Iran. Despite consistent speculation over the use and source of the CW agents, there is no conclusive proof that chemical weapons have proliferated or been used to any great extent. Nevertheless, the actual or possible outbreak of CW warfare remains an issue of increasing concern to most governments, including the Australian Government.

#### United States

7.45 The size of the US chemical weapons stockpile is classified, but public estimates are around 32 000 tons of poison gas. (See Table 7.8) About half of this is mustard gas and the other half nerve gas (primarily Sarin and VX). Most of the mustard gas is stored in bulk containers, whereas around 80 per cent of the nerve gas is located in filled munitions. The total number of poison-gas munitions in the U.S. stockpile is said to exceed 3 million rounds (principally artillery, mortar, bombs and rocket projectiles). A large number of these are either obsolete or belong to weapons systems which are being phased out.

7.46 The majority of the total U.S. supply of poison gas is held within the continental United States although there are at least two significant stockpiles located overseas. One is on Johnston Island in the Pacific, the other is probably at

Table 7.7 Alleged instances of poison gas and germ warfare since 1974

Alleged user, and occasion	Period	Weapons allegedly used
Laotian and Vietnamese forces in Laos	1974-1981	Mustard gas, irritants, nerve gas and mycotoxins spread by aircraft
Both sides during the Shaba rebellion in Zaire	May 1977	Poison arrows
South African forces during air attack on Kassinga, Angola	May 1978	"Paralyzing gas"
Vietnamese forces in Kampuchea	1978-1981	Irritants, cyanide, tabun and mycotoxins spread by aircraft or artillery; poisoning of water
US covert action (CIA) in Cuba	1978-1981	Causing sugar-cane rust, blue mould of tobacco, African swine fever and, in people, haemorrhagic dengue and haemorrhagic conjunctivitis
Vietnamese forces against Chinese invasion	February 1979	"Poison gas"
Chinese forces in Viet Nam	February 1979	"Toxic gas" and "poisoning of drinking water sources"
Soviet forces in Afghanistan	1979-1981	Nerve gas, irritants, "Blue-X" incapacitant and mycotoxins spread by aircraft and ground weapons; toxic bullets
Mujahideen in Afghanistan	1980-1981	"Lethal chemical grenades"
Ethiopian forces against Eritrean secessionists and in the conflict with Somalia	Summer 1980	"Chemical warfare" (allegations coincide with reports of nerve-gas supplies reaching Asmara and Massawa)
	April 1981	"Chemical spraying"
Iraqi forces in Iran	November 1980	"Chemical bombs"
Salvadoran Army and National Guard in El Salvador	1981	"Toxic gas", "chemical bombs" and "acid spray"

Source: SIPRI Yearbook 1982, p. 340



Table 7.8 US holdings of lethal chemical weapons: estimates from open sources

Item	Number held	Short tons of chemical fill
<b>Munitions now obsolete, deteriorated beyond repair or for weapons no longer in service</b>		
115-mm rockets	480 000	2 500
115-mm gun rounds, land-mines, leakers and unrepairables	320 000	1 400
<b>Bulk agent held for filling new or re-usable munitions</b>		
1-ton drums of non-persistent nerve agent GB	5 700	4 300
1-ton drums of persistent nerve agent VX	2 300	1 800
1-ton drums of mustard gas (persistent)	14 000	12 600
<b>Persistent-agent munitions for ground weapons</b>		
For in-service but obsolescent weapons:		
4.2-in mortar rounds, mustard filled	470 000	1 400
105-mm howitzer rounds, mustard filled	480 000	700
For modern in-service weapons:		
155-mm howitzer rounds, mustard filled	300 000	1 700
155-mm and 8-in howitzer rounds, VX filled	300 000	950
<b>Non-persistent-agent munitions for ground weapons</b>		
For in-service but obsolescent weapons:		
105-mm howitzer rounds, GB filled	900 000	750
For modern in-service weapons:		
155-mm and 8-in howitzer rounds, GB filled	200 000	850
155-mm howitzer rounds, binary GB	Planned <sup>b</sup> : 1 200 000 a	5 100
<b>Aircraft munitions</b>		
For in-service but obsolescent weapons:		
2000-lb spraytanks, VX filled	900	630
For modern in-service weapons:		
500-lb and 750-lb bombs, GB filled	13 000	1 300
500-lb spraybombs, binary VX	Planned <sup>b</sup> : 44 000	4 100

- a. In 1983, the Army's acquisition objective for the 155-mm GE2 projectile had been 410 000 rounds. That, however, would have been the objective for equipment of US forces only. Subsequent acquisition targets allowed for the equipment of European NATO forces as well. In March 1984, the Congress was told by the Army that 'the current stockpile of GB artillery munitions represents approximately 20 per cent of our identified requirement' and that the shortfall would be met by acquisition of the 155-mm GE2 round.
- b. The 1985 acquisition objective.

Source: SIPRI Yearbook 1986, p. 168

Fischbach in West Germany, which is thought to hold around 10 000 tons of munitions containing nerve gases (VX and Sarin). This supply has not been assigned to NATO and remains totally under U.S. control. There has been no large-scale production of poison gas in the United States since 1967 or of filled poison-gas munitions since 1969. From 1982, the Reagan Administration has sought Congressional approval to produce binary chemical weapons. This request is part of a broader move to upgrade U.S. chemical weapons capabilities, the primary rationale for this being:<sup>35</sup>

- a. to offset the perceived advantage in chemical weapons held by the Soviet Union 'which could be a decisive factor in conventional conflicts';
- b. to deter a Soviet initial attack by improving US protective capabilities against chemical weapons attack and by re-establishing a 'retaliatory capability sufficient to assure that the Soviets, too, would have to operate in a protective posture'; and
- c. to increase U.S. negotiating leverage in its efforts to achieve a mutually acceptable convention on chemical weapons.

7.47 Prior to 1985, the United States' Congress refused to make funds available for the production of binary CW agents (although in each case the decision was without prejudice to reconsideration of the matter the following year) and no funds for this purpose were sought by the Administration in Fiscal Year 1985 (which began on 1 October 1984). While the arguments against chemical weapons have run the full gamut of military, security, technical and diplomatic concerns, an important factor in the Congressional opposition to date has been the moral repugnance of chemical weapons.<sup>36</sup> The Congressional decision has not stopped research into binary weapons and a number of other chemical weapons programs which are continuing, including:

- a. a program, initiated by the Carter Administration, for increasing US CW retaliatory capability by restoring to full serviceability all otherwise usable CW munitions in need of repair. SIPRI reports that this program is due for completion by 1987 and will provide an effective retaliatory stockpile some three times larger than that which was available at the beginning of 1982;
- b. an upgrade of U.S. and NATO protective clothing and procedures over the period 1985-89, with emphasis on developing and fielding improved protective equipment and supplies, increased chemical-related training for all services and the development of improved detection equipment; and
- c. a proposal under the FY 1985 program to provide some production facilities for the 155 mm binary artillery projectile and the Bigeye aerial bomb which would contain binary VX agents.<sup>37</sup>

Table 7.9 The US CW programme:  
funding sought in the President's budget for FY 1986

Programme element	Request (\$m)
Anti-chemical protection	
Research, development, test and evaluation	391
Equipment and construction	545
Current CW weapon stockpile	
Maintenance and security	64
Demilitarization of items for disposal	132
Binary-munitions programme	
Completion of Bigeye production facilities	109.1
Initial production Bigeye VX2 spraybombs	43.7 a
Initial production of 155-mm GB2 projectiles	21.7 b
Further development of MLRS binary warhead	20.4
Further development of other follow-on munitions <sup>c</sup>	12.5

- a Sufficient to procure 850 Bigeyes, half for the Navy and half for the Air Force. The following year's programme would provide a further \$103.2m for production of 2615 Bigeyes.
- b Information does not appear to have been released about the number of rounds that were to be procured. It was apparently about 40 000 rounds.
- c One follow-on system mentioned in 1985 congressional testimony was a binary warhead for the Joint Tactical Missile System. A further \$1.2m was to be programmed by the Air Force in FY 1986 for development of binary stand-off weapon concepts, including the idea of attaching a rocket motor to Bigeye.

Source: SIPRI Yearbook 1986, p. 165

7.48 The SIPRI Yearbook 1986 reported that in 1985, as part of its consideration of proposed funding for FY 1986, the U.S. Congress 'provided President Reagan's Administration with both authorization and funding for resumed production of nerve-gas weapons'. The U.S. Department of Defense proposed CW program is shown in Table 7.9. SIPRI stated that the Congress finally passed about three-quarters of the proposed binary procurement program, where production money for the Bigeye spraybomb was refused, although money was granted to build its factories. The binary weapon appropriations were made conditional upon the Administration satisfying a range of preconditions, the principal one being that NATO had to formally accept the development of a chemical weapons deterrent for deployment in Europe.<sup>38</sup>

#### Soviet Union

7.49 The Soviet Union has never given the size of its CW holdings. As a result, all information about the Soviet stockpile comes from Western sources and so contains a high degree of uncertainty. Current estimates range from 30 000 to more than 700 000 tons of chemical agents. The agents said to be stockpiled include a variety of First and Second World War gases as well as nerve gases (principally tabun and soman).

7.50 There is considerable speculation and uncertainty over whether the Soviet Union is expanding or updating its chemical weapons stocks. The SIPRI Yearbook 1982 stated that:

For the past several years there have been innumerable reports in the non-specialist literature that the USSR has been expanding its stocks of chemical weapons and that it still continues to do so. Statements by senior Western officials also refer to a build-up; but what they have invariably been referring to has been an increase in offensive chemical-warfare capability, not continuing production of chemical weapons.

Furthermore:

As for continuing production of chemical weapons or munitions, it is reliably reported that the US intelligence community has no hard evidence of any such production during the 12 years that have elapsed since cessation of US production.

Nor, it must be said, does the United States appear to have any hard evidence that the USSR has not been producing chemical weapons these past 12 years. If institutional pressure for 'modernisation' of stocks has indeed been as strong as for the United States...the possibility for a similar supply-side influence on the USSR must also be admitted, for there too a largely autonomous Chemical Service has long been in existence.<sup>39</sup>

7.51 The focus on the Soviet chemical weapons stockpile, and perceptions of Soviet CW policy have been sharpened by a growing number of reports of Soviet forces and Soviet client states actually using chemical weapons and toxic agents in conflicts in Asia and Africa. A second area of concern surrounds a reported epidemic of anthrax in the Soviet city of Sverdlovsk in 1979. Western sources have alleged that the epidemic originated in a biological warfare research and development facility located near the city. This has been vigorously denied by the Soviet Union which claimed that there had been a localised epidemic of systemic anthrax accidentally caused by contaminated meat. The evidence surrounding both these concerns remains contradictory and inconclusive. Nonetheless, suspicion and speculation continue to abound and have led to increasingly strident accusations and counter-accusations by both superpowers. As will be discussed shortly, these two concerns point to two major shortfalls in the present CW arms control regime: lack of provisions both for verification of compliance and investigation of alleged treaty violations. They are also impeding progress in the Conference on Disarmament (CD) towards achieving a chemical weapons convention.

7.52 In 1985, the Defense Intelligence Agency of the U.S. Department of Defense released a publication entitled Soviet Chemical Weapons Threat<sup>40</sup> which provided unclassified information on the Soviet Union's chemical warfare capabilities. The document gave information on Soviet chemical warfare agents and delivery systems as well as maps purporting to show the general locations of ten CW agent 'production centers', and nine 'chemical weapons depots' inside the Soviet Union as well as 32 locations in other WTO countries where chemical weapons are said to be stored. The report did not give an estimate of the current size of the Soviet CW stockpile.

#### France

7.53 France is known to have chemical weapons, but the size, nature and content of the French stockpile remains largely unknown outside French military circles. There is continuing speculation that France is developing binary weapons to replace older stocks of nerve gases but evidence for this remains inconclusive.

The CW Disarmament and Arms Control Regime

#### CBW Treaties

7.54 Biological Warfare Convention. The BW Convention was signed on 10 April 1972 and entered into force on 26 March 1975. It prohibits the development, production, stockpiling or acquisition by other means or retention of other biological agents or toxins whatever their origin or method of production, of types and in quantities that have no justification for prophylactic, protective or other peaceful purposes. Also prohibited are weapons, equipment or means of delivery designed to use such agents or toxins for hostile purposes or in armed conflict. The destruction of the agents, toxins, weapons,

equipment and means of delivery in the possession of the parties, or their diversion to peaceful purposes, should be effected not later than nine months after the entry into force of the Convention. In addition, the Convention obliges the parties to continue negotiations on chemical weapons with a view to reaching early agreement on effective measures for the prohibition of their development, production and stockpiling and for their destruction.

7.55 Under the terms of the Convention, any party suspecting that any other party is in breach of obligations deriving from the Convention may lodge a complaint with the UN Security Council, including all possible evidence. Furthermore, each party undertakes to cooperate in carrying out any investigation which the Security Council may initiate. The Convention is of unlimited duration and is open to all states for signature. Any party may withdraw on three months notice to the UN Security Council. At the end of 1983, 99 states had become party to the Convention, notable exceptions being China, France and Israel.

7.56 Geneva Protocol. The Geneva Protocol prohibits the use in war of asphyxiating, poisonous or other gases, and of all analogous liquids, materials or devices, as well as the use of bacteriological methods of warfare. The Protocol was signed at Geneva on 17 June 1925 and entered into force on 8 February 1928. It has 106 parties, including all the major powers. The application of the Protocol is even more general, however, since its prescriptions are widely regarded as having become part of customary international law.

7.57 While the anti-CBW regime establishes wide-ranging restrictions against such weapons, it suffers from a number of serious limitations. There is the major omission of any universal ban on the possession of chemical weapons. At present, parties to the BW Convention are simply required to affirm the objective of effective prohibition of chemical weapons and conduct negotiations towards this objective. The Geneva Protocol covers the use in war of asphyxiating, poisonous or other gases but says nothing about storage or stockpiling. There are no limitations therefore on nations developing and storing chemical weapons for retaliatory purposes or in order to deter the first-use of chemical weapons by other states. A significant number of parties to the Geneva Protocol have signed on the understanding that the Protocol ceases to be binding in the event they are subjected to such an attack by another state. In this respect therefore, the Protocol simply operates as a no-first-use agreement. In addition, a number of states, including the major powers, have expressly reserved the right to retaliate in kind should they be attacked.

7.58 A second important shortcoming is the absence of any sort of international verification or investigative machinery responsive to allegations of CW use. At present, the BW Convention requires parties to report allegations, and any supporting evidence, to the United Nations' Security Council. It is then for that body or the Secretary-General of the United Nations to decide whether and how the allegations should be

investigated. The lack of formal machinery and procedures complicates the task of assessing allegations and may detract from the objectivity or credibility of reports.

7.59 Other shortcomings in the present CBW arms control regime include:

- a. a lack of definition of what kinds of materials are prohibited by the Geneva Protocol: does it, for example, cover the use of tear gases or herbicides?
- b. the BW Convention permits development, production and stockpiling of BW and TW agents for 'prophylactic, protective, or other peaceful purposes' without defining what these purposes are: could it permit therefore the development and production of potential BW agents with novel immunological or pathogenic characteristics which could be adapted to military use?
- c. while there appears to be general agreement that the BW Convention covers substances that could be developed using recombinant DNA and other genetic engineering techniques, it does not control research into these areas; and
- d. no consultative machinery exists to enable parties to exchange information, discuss questions of compliance, to review new scientific and technological developments, and so on.

#### Negotiations for a Comprehensive Chemical Weapons Convention

7.60 Since the entry into force of the BW Convention in 1974, extensive efforts have been made to strengthen the CBW arms control regime, especially to achieve a chemical weapons convention. These activities involved at first extensive bilateral negotiations between the United States and the Soviet Union. Following the breakdown of these talks in 1980, the focus of activity shifted to the Conference on Disarmament (CD) in Geneva.

7.61 The initial bilateral negotiations took place over the period 1977 to 1980. According to SIPRI's Julian Perry Robinson, areas of broad agreement were registered quite quickly by the working group including the objective of a comprehensive treaty obliging parties 'never to develop, produce, otherwise acquire, stockpile or retain supertoxic lethal, other lethal or harmful chemicals or precursors of such chemicals'. Agreement was also reached on the use, in principle, of on-site inspections as a basis for verification of stockpile destruction. Perry Robinson concluded that :

By the tenth round of bilateral talks, in the summer of 1979, it was said that a mutually acceptable compromise was coming into sight. But further substantive progress became all but impossible after the Soviet occupation of Afghanistan.<sup>41</sup>

Although two further rounds of talks took place in 1980, the Reagan Administration transferred the focus of negotiations away from bilateral talks to multilateral discussions in the Committee on Disarmament.

7.62 The Committee on Disarmament formed in 1980 an Ad Hoc Working Group on Chemical Weapons. The initial task of the Working Group was 'to define, through substantive examination, issues to be dealt with in the negotiation on' a chemical weapons convention. This mandate was strengthened in 1982 'to elaborate such a convention, taking into account all existing proposals and future initiatives, with a view to enabling the Committee to achieve agreement at the earliest date'.<sup>42</sup>

7.63 The Working Group currently has before it two detailed papers, submitted in June 1982 and February 1983, setting out respectively the basic Soviet and American requirements for a CW treaty including, in the former case, 'some application of systematic international on-site inspection'. According to the SIPRI Yearbook 1984:

What had thus taken place within the CD were outer bounds within which a potentially worthwhile compromise might be negotiated. The gap between the U.S. Detailed Views and the Soviet Basic Provisions was not small, but, although the USSR continued to attract criticism from Western and non-aligned countries for withholding clarification of key features of its position, the concessions it had made by the end of the summer session of the CD had slightly narrowed the gap.<sup>43</sup>

7.64 Using these documents, the Working Group was able to table a report setting out the state of both agreement and disagreement on more than 100 of the subordinate issues on which consensus must be reached before the projected chemical weapons convention can be concluded. According to the SIPRI Yearbook 1984, the major issues of contention include:<sup>44</sup>

- a. Destruction and elimination of stockpiles. The U.S. position is that the destruction of chemical weapons should occur on-site and should be subject to continuous international verification until destruction is completed. The Soviet Union does not want to declare existing locations of stocks because that might affect defence interests not connected with chemical weapons. It has proposed that special store-houses be established for the destruction of chemical weapons stocks and that only their location be declared. The international verification of stocks would take place through an agreed number of inspections, the frequency of the inspections being determined by the toxicity of the chemicals and other factors. Other areas of

disagreement include the possibility of using some chemicals for non-hostile purposes, specific verification measures and the deadline for the beginning of elimination of stocks.

- b. Destruction and elimination of the means of production of chemical weapons. The United States proposal is to cease immediately all activity at any chemical weapon production or filling facility and commence their destruction, under agreed international verification procedures, not later than six months after the convention enters into force. Destruction would be completed not later than 10 years after that date. The Soviet Union proposes that the elimination of chemical weapon production facilities should start not later than eight years after the convention has entered force, and that the declaration of their location be made one year before that date. Verification procedures would be similar to those for the destruction of stockpiles.
- c. Non-production of chemical weapons or their constituents in the chemical industry. There is disagreement among a number of parties over the possible restrictions on supertoxic chemicals or key precursors for permitted purposes such as industrial, agricultural, research medical, law enforcement and protective purposes. There is also disagreement over how the destruction or non-production of such chemicals would be verified.

7.65 In commenting on these areas of contention, SIPRI noted that discussions held throughout 1983:

...helped to reduce the points of disagreement among states on a number of technical matters as well as on certain procedures for verification. The remaining divergencies are not without significance, but the area of converging views now seems to be sufficiently wide to render possible the drafting of actual treaty provisions. This is the view of the overwhelming majority of the United Nations, which in the General Assembly resolutions of 20 December 1983 urged the CD to intensify negotiations on a chemical weapons convention, and to proceed immediately to drafting such a convention. Indeed, the very process of drafting, which implies trade-offs among the negotiators, may be conducive to overcoming the outstanding obstacles.<sup>45</sup>

7.66 In April 1984, the United States tabled a draft Chemical Weapons Convention which was supported by Western members including Australia. During that year, the Chemical

Weapons Committee of the CD continued its consideration of the issues related to a draft convention although none of the major areas of contention were able to be resolved completely. One significant development was the announcement by the Soviet Union that it was prepared to accept continuous on-site inspection of destruction of chemical weapon stocks and the 'open invitation' verification regime contained in the United States' draft convention. It still had strong objections to a number of other provisions relating to verification and compliance. For example, the Soviet Union considers that, as worded, the U.S. Convention only allows for inspection of state-run facilities which would not cover all Western CW facilities. These issues were raised in the discussions between this Committee and the visiting Soviet and United States arms control delegations to Australia in 1984. However, the United States provided an assurance that its draft Convention had not been presented on a 'take-it-or-leave-it' basis and is prepared to negotiate on its contents.

7.67 The Conference's end of session report contained a preliminary structure for a CW Convention, together with a number of draft provisions, as well as a series of position papers on specific issues. All these provided a useful basis for further negotiations in 1985. Unfortunately, there has been little progress since that time towards drafting a convention on chemical weapons. This has been largely due to the worsening of relations between the superpowers, fostered by allegations of each side expanding its CW arsenals, and alleged use of CW agents by Soviet forces in Afghanistan. As well as limiting progress in the CD, these pressures are threatening to undermine the existing CBW arms control regime and, if allowed to continue, could result in a new arms race.

#### Australia's Role

7.68 Australia places a high priority in its international arms control efforts on eradicating existing chemical weapons and preventing their future use. It has no weapons of its own and is aware of the dangers of chemical weapons. According to the Department of Foreign Affairs, chemical weapons are:

second only to nuclear weapons in the threat they pose to mankind. Their effects are devastating and inhumane. Perhaps the greatest danger lies in the fact that they are relatively cheap and their production does not require a very sophisticated infrastructure. They are also relatively easily stored and concealed.<sup>46</sup>

Accordingly the Australian Government is:

...conscious of the need to develop an effective and verifiable international convention which would outlaw the development, production, stockpiling, manufacture, storage or use of chemical weapons. Such a convention would supplement the present 1925 Geneva Protocol which

only prohibits the use in war of asphyxiating, poisonous and other gases and of bacteriological methods of warfare, but not their production or stockpiling, and the 1972 Biological Weapons Convention which bans the development, production, stockpiling and international transfer of biological and toxin weapons. Australia is a full party to both agreements, and at the ... Commonwealth Heads of Government Meeting in India in November 1983, Mr Hawke urged all Commonwealth members that had not done so to become full parties to those agreements.<sup>47</sup>

7.69 Within the Committee on Disarmament (CD), the Australian delegation has taken an active role in the negotiation of a Chemical Weapons Convention. Australia has participated in detailed working group considerations and it coordinates the Western Group of member states in their review of proposals and matters of interest. The Australian delegation includes an expert on chemical weapons seconded from the Department of Defence.

7.70 Australia strongly supports the United States draft for a Convention on Chemical Weapons submitted to the CD in April 1984. As Foreign Minister Hayden stated in his speech to the CD on 7 August 1984:

The United States draft contains (by and large) the prohibitions which Australia would like to see in the future convention - in particular, an absolute prohibition on the use of chemical weapons. It also provides verification and compliance provisions of the standard which Australia believes is necessary if such a convention is to attract the adherence of all relevant states and to be fully effective in its physical and political objectives.<sup>48</sup>

Mr Hayden also informed the CD that Australia wants an acceleration of the CD's work on chemical weapons, where the 'critical task is to resolve differences over the verification provisions'. It has lobbied both the United States and the Soviet Union to continue to negotiate on verification and other issues of contention, and has gained assurances from the United States, which have been conveyed to the Soviet Union, that all aspects of the draft convention remain fully negotiable.

7.71 Other Australian initiatives on chemical weapons include:<sup>49</sup>

- designation of the Defence Department's Materials Research Laboratories (MRL) in Melbourne for inclusion in the list of laboratories and experts maintained by the United Nations Secretary-General for possible use in investigations of allegations of

the use of chemical weapons. Australia also provided an expert from MRL for the United Nations investigation in March 1984 which confirmed the use of CW in the Iran/Iraq war.

- In the 1984/85 Budget, funds (\$1.6 million over three years) were approved to strengthen Australia's capacity to participate in negotiations on a Comprehensive Chemical Weapons Convention and its verification. These funds will be spent on:
  - purchasing new equipment for MRL to enable it to better analyse samples collected by an investigation team;
  - providing additional resources for MRL to provide technical advice on chemical weapons issues to the Australian delegation to the CD and to policy departments in Canberra;
  - sending a technical expert from MRL to Geneva to participate in regular meetings of experts within the CD's Ad Hoc Committee on Chemical Weapons.
- In August 1984 Australia, along with the United States, Canada, Japan and the EC countries, introduced controls over the export of chemicals which were identified as contributing to the manufacture of the chemical weapons (tabun and mustard gas) used in the Iran/Iraq War. Australia is currently considering how these export controls could be strengthened and is considering convening a meeting in Geneva on this issue in the second half of 1985.

#### Conclusions and Committee Views

7.72 From the foregoing it is clear that the present CBW disarmament and arms control regime and efforts to extend it are being subjected to pressures which could ultimately destroy the regime and lead to the vertical and horizontal proliferation of chemical and biological weapons. The major pressures on the current regime include:

- a. the modernisation and upgrading of U.S. CW capabilities in response to a perceived Soviet build-up and the increased emphasis of both superpowers on improving CW protective measures for their armed forces. Underlying this is the increasing integration of chemical and conventional warfare, both structurally and conceptually, into the military strategies of both sides. Ascendant opinion in the West, for example, believes that Soviet chemical weapons exist to satisfy requirements other than merely deterring any American use of such weapons. Accordingly the U.S. is seeking to match Soviet capabilities or at least

offset any perceived deficiencies. These factors are used to justify further development and deployment of chemical weapons and therefore facilitate a renewed arms race in chemical weapons. In turn, they may erode the earlier universal predisposition against such weapons, and lead to their adoption and use by other nations;

- b. the persistent and increasingly strident accusations and counter-accusations over alleged usage and transfer of chemical weapons by both sides and over alleged infractions of the 1972 BW Convention is undermining the credibility of the existing CW arms control regime. Even if the regime is not being flouted, a lot of people think that it is, including governmental policy-makers; and
- c. the grouping of CW violations with alleged infractions of other arms control treaties in other negotiating fora is making negotiations of a Chemical Weapons Convention more difficult and uncertain. It also makes impartial and accurate investigations of alleged violations more difficult.

7.73 The Committee notes that a Biological Warfare Convention exists and that to date, it has served to prevent the development or stockpiling of such weapons. The Committee also notes the growing incidence of biological and related research which could give rise to such weapons being produced. It considers that modern biological weapons would pose an unprecedented threat to the human race and efforts should be taken to constrain or at least monitor all future research which could lead to the development of biological weapons.

7.74 The Committee supports the Government in its view that it is vitally important to establish a Convention prohibiting the possession and use of all chemical weapons as quickly as possible. Modern chemical and biological weapons pose an unprecedented threat to mankind, second only to the risks of nuclear war. The use of even a small part of existing stockpiles within unprotected cities or urban areas would result in large-scale suffering and death. If existing chemical weapons are maintained and upgraded and are allowed to spread to other nations or subnational groups then the chances of a major catastrophe occurring must increase.

7.75 The Committee considers that the 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 discussion. 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 on the CD, it is also necessary to address concurrently the political and technical obstacles confronting the CW problem. To do this the Committee recommends that Australia:

- a. encourage the Soviet Union and France to declare their existing stockpiles of chemical weapons, possibly allowing a neutral nation to inspect and confirm their present holdings;
- b. 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;
- c. propose the establishment, under the aegis of the United Nations, of a consultative body to hear allegations of CBW usage or treaty violations, examine such allegations where necessary and report its findings. The same body could also review and report its findings. The same body could also review developments in technology or science which could upset the CBW 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.

CHAPTER SEVEN  
ENDNOTES

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13. SIPRI Yearbook 1986, p.325.
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15. Quoted in Foreign Affairs Record, July 1983, p.
16. J. Perry Robinson, 'Quasilinear Weapons', in William Gutteridge and Trevor Taylor (eds), The Dangers of New Weapon Systems, London Macmillan, 1983, p.157.
17. Women's International League for Peace and Freedom, Submission, p.S118.
18. Quoted in People for Nuclear Disarmament, (NSW), Submission, p.S80
19. Quaker Peace Committee, Hobart, Submission, p.S744. The claim that Australia is the twelfth major largest exporter of arms to the Third World was based on figures contained in the SIPRI Yearbook 1981 which showed the total value of

- Australia's exports of major weapons for the period 1977 to 1980 was \$US361 million or 0.6% of total exports during that period. The SIPRI figure appears to be exaggerated. In answer to a Senate question, in February 1984, the Minister for Defence provided information which showed that the total value of arms exported by the Australian Government for the period considered by SIPRI was \$A15.25 million. Figures for exports by private industry are unavailable but are unlikely to have exceeded Government exports. The total of all defence aid provided under the Defence Cooperation Program (DCP) for that period was \$A112.25 million.
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37. Annual Report to the Congress, Fiscal Year 1985, pp.274-76.
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## CHAPTER 8

## WORLD MILITARY EXPENDITURE AND ITS ECONOMIC IMPLICATIONS

## World Military Expenditure

8.1 The economic and social consequences of military expenditure are cause for serious concern, both in developed and developing countries. Some, including Foreign Minister Hayden, argue that ever-increasing military expenditure has not purchased improved feelings of security for the world:

During the 1970s the world spent about four trillion dollars (i.e. \$4 million million) on the military. In spite of this enormous expenditure on resources there is little evidence that people feel more secure than they did 10 years ago; indeed if the rapid growth of the peace movements over the past few years is any guide, the reverse is almost certainly the case.<sup>1</sup>

Others, including the former Swedish Minister for Disarmament, have supported the view that, in fact, the world has become less secure:

What makes the arms race a global folly is that all countries are now buying greater and greater insecurity at higher and higher costs.<sup>2</sup>

8.2 Most Committee evidence and international attention, however, has focused on the prejudice to economic growth and social welfare in developing countries; there is also concern that developed countries are suffering economically from their levels of military expenditure. At the outset two qualifications should be applied to observations about the welfare opportunities lost to excessive military expenditure. First, although the health, education and other welfare and development opportunities lost through this order of military expenditure are widely recognised, it cannot be assumed that alternative non-military applications necessarily would be found for such resources. Nevertheless, a considerable proportion of these resources are likely to be used for such non-military applications, especially if a more comprehensive disarmament process is achieved. Second, even in a more secure world, resources would still need to be allocated to defence.

8.3 Total world military expenditure for 1985 has been estimated at some \$850-870 billion (1985 \$US). The Australian Minister for Foreign Affairs has noted that:

The United Nations study on The Relationship between Disarmament and Development published in 1981 observed that there was general agreement

and that the figure expended on arms each year was in excess of \$500 000 million in 1980 prices. The Palme Commission report on Common Security released in June 1982 estimated that global military spending for that year would exceed \$650 000 million at current prices. The latest report of the Stockholm International Peace Research Institute put the figure for 1982 at \$700 - \$750 billion.

Whatever the true figure these are sums that stagger the imagination. Even if we accept the lower figure of \$500 000 million it amounts to \$110 for every man, woman and child on earth. According to the UN study, \$500 000 million represents about 6 per cent of global output... The current expenditure on arms for one year would pay off all the \$599 billion debt of developing countries, which is threatening the fabric of the world financial system. Global public expenditure on education has only recently overtaken global military expenditure while global public expenditure on health remains considerably below global military expenditure.<sup>3</sup>

8.4 While individual countries are responsible for their own security and level of defence expenditure, at the same time they need to appreciate the world-wide economic and social implications of their collective expenditure. These implications are the focus of this Chapter.

#### Military Expenditure by the Superpowers

8.5 Contrary to popular conception, the greatest proportion of military expenditure is not on nuclear forces:

Overwhelmingly the greater part of global resources diverted to military purposes is spent on conventional forces. The nuclear powers themselves spend far more on their conventional forces than they do on their nuclear forces. During the 1970s at least 80 per cent of superpower military outlays were on conventional forces.<sup>4</sup>

(This does not mean, however, that a nuclear deterrent would necessarily be more cost-effective than a non-nuclear defence for countries yet to establish a nuclear fuel cycle for weapons purposes).

8.6 Table 8.1 shows estimated military expenditure by the region over the period 1976-1985. The superpowers together account for approximately half of total world military

expenditure. While spending in the United States stabilised in the late 1970s, it has since increased in response to the current Administration's perception that U.S. defence capabilities required rapid up-grading to match the Soviet build-up throughout the 1970s. According to the *SIPRI Yearbook 1986*<sup>5</sup>, United States military expenditure over the period 1980 to 1985 increased by six per cent per annum. SIPRI further stated that the Reagan Administration requested \$322.2 billion for national defence budget authority in FY 1986 which was subsequently reduced by Congress to \$286.1 billion. The Administration has requested \$320.3 billion for national defence in FY 1987 which would equate to an 8.2 per cent real increase. The projected outlays on defence for the following four years will continue to increase but at a reducing rate (see Table 8.2). The justification for this program of increased spending was stated by President Reagan in an address to the nation on 22 November 1982:

The combination of the Soviets spending more and the United States spending proportionately less changed the military balance and weakened our deterrent. Today, in virtually every measure of military power, the Soviet Union enjoys a decided advantage. We've recognised the problem, and together with our allies, have begun to correct the imbalance ... If my defence proposals are passed, it will take five years before we come close to the Soviet level.

8.8 There are considerable difficulties in estimating Soviet defence expenditure, notably an absence of Soviet source material and conceptual difficulties in analysing the Soviet economy and comparing it with a capitalist economy. Both IISS and SIPRI estimate that Soviet expenditure since the 1970s has shown a gradual but steady upward trend (Table 8.3). In its recent publication *The Military Balance 1985-1986*, the IISS stated that 'nearly all competent Western observers believe that the one-line official Soviet defence figures underestimate actual expenditure by a factor of 10 or more'.<sup>6</sup> It further stated that most observers believe that Soviet military spending has been increasing at a constant rate of 2 to 4 per cent since the mid-1970s and that it is now around 12 to 17 per cent of Soviet GDP. The official U.S. approach was explained as follows in Professor Gelber's evidence:

In the middle 1970s the Americans engaged in a fundamental re-evaluation of the proportion of GNP that the Russians were devoting to defence. The then prevailing intelligence estimates were that the Russians were spending about 7 or 8 per cent of GNP. After the reassessment - which encountered all the difficulties that you very rightly mentioned, that is how you compare rouble expenditure with dollars and how you compare effort in the Soviet Union with what is happening in the United States - it was concluded that in fact Soviet defence expenditure is anywhere

Table 8.1 World military expenditure summary, in constant price figures

Figures are in US \$m., at 1986 prices and exchange-rates. Total may not add up due to rounding.

	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	Share of 1986 total (%)
USA	131 712	137 188	137 838	138 798	143 891	153 884	167 711	179 861	187 897	204 898	30.8
Other NATO <sup>a</sup>	101 692	103 282	107 039	108 381	112 320	118 163	118 080	119 171	120 137	122 784	18.5
Total NATO	233 304	240 470	244 877	248 179	256 211	267 037	283 792	298 822	308 124	327 682	49.4
USSR	124 600	128 100	128 000	128 900	131 900	133 900	135 900	137 900	142 000	148 200	22.0
Other WTD	11 548	11 983	12 208	12 388	12 478	12 878	13 174	13 145	13 303	13 892	2.1
Total WTD	135 748	137 983	140 208	142 288	144 278	146 278	148 074	151 045	155 303	160 192	24.1
Other Europe	14 084	14 081	14 282	15 028	15 427	15 327	15 760	16 069	16 271	16 889	2.5
Middle East	39 118	37 883	37 582	38 485	41 190	45 177	52 846	53 317	51 434	49 854	7.5
South Asia	5 718	5 521	5 773	6 289	6 698	7 065	7 784	8 137	8 605	9 007	1.4
Far East	21 270	22 780	25 080	28 000	27 360	29 080	30 820	31 840	32 830	34 800	5.2
excl. China											
China <sup>b</sup>	44 700	43 100	48 400	52 800	42 700	34 900	36 400	34 500	33 900	30 000	4.5
Oceania	3 832	3 849	3 917	4 038	4 273	4 587	4 788	4 904	5 274	5 350	0.8
Africa excl. Egypt	12 850	13 488	13 824	14 870	14 758	13 860	13 931	14 222	12 889	12 889	1.9
Central America	1 881	2 429	2 598	2 820	2 863	3 275	3 358	3 618	3 751	3 787	0.6
South America	9 007	10 637	10 685	10 720	11 805	11 818	17 012	15 027	14 118	13 300	2.0
World Total	552 820	581 930	547 080	561 880	587 050	678 580	815 050	831 560	842 590	963 180	100.0
Industrial market economies <sup>c</sup>	248 924	257 241	262 841	267 883	276 957	287 383	305 116	321 825	331 619	351 870	53.1
China <sup>b</sup>											
Non-market economies <sup>c</sup>	183 648	184 858	182 760	189 248	191 448	188 285	190 684	191 057	195 201	196 451	28.6
Oil-exporting countries <sup>d</sup>	40 882	38 833	41 851	44 125	47 006	51 910	58 195	57 832	55 788	54 824	8.2
Rest of the world <sup>e</sup> with 1983 per capita GDP	48 057	49 999	49 634	50 783	51 635	54 007	61 059	61 075	59 981	60 174	9.0
US \$440											
US \$440-1929	8 201	7 805	8 411	9 008	9 297	9 582	10 987	10 751	11 077	11 552	1.7
US \$440-1929	12 882	13 780	12 188	11 834	11 859	12 888	13 485	14 098	13 772	14 008	2.1
US \$1614	28 873	29 435	29 054	29 853	30 827	31 780	37 177	36 228	35 143	34 616	5.2

<sup>a</sup> Spain is not included in NATO but in Other Europe, since Spanish military expenditure data according to the NATO definition are not yet available.

<sup>b</sup> The exchange-rate used is ¥10.5/¥1. See further *SIPRI Yearbook 1984*, p. 136.

<sup>c</sup> The economic groupings used here are as follows:

Industrial market economies: Australia, Austria, Belgium, Canada, Denmark, Finland, France, FR Germany, Ireland, Italy, Japan, Luxembourg, Netherlands, New Zealand, Norway, Spain, Sweden, Switzerland, UK and USA.

Non-market economies: Albania, Bulgaria, China, Cuba, Czechoslovakia, German DR, Hungary, North Korea, Mongolia, Poland, Romania and USSR.

Oil-exporting countries: Algeria, Bahrain, Congo, Ecuador, Gabon, Indonesia, Iran, Iraq, Kuwait, Libya, Mexico, Nigeria, Oman, Saudi Arabia, Syria, Tunisia, Trinidad and Tobago, United Arab Emirates, and Venezuela.

Rest of the world: Excluding Kampuchea, Laos and Vietnam. Countries are grouped in accordance with the classification of per capita GDP used by the World Bank in *World Development Report 1985*, Oxford University Press, New York, 1985, p.174 and table 1, p.232.

Source: *SIPRI Yearbook 1986*, p.291.

Table 8.2 US Administration budget estimates for fiscal years 1986-91 (as of February 1986)

Figures are in US \$b.

	1986	1987	1988	1989	1990	1991
Total budget authority						
Total national defence, <sup>a</sup> current prices	286.1	320.3	341.6	363.2	384.8	405.9
Total Department of Defense, current prices	278.4	311.6	332.4	353.5	374.7	395.5
Total Department of Defense, constant (1987) prices <sup>b</sup>	288.0	311.6	321.1	330.4	340.0	349.2
Percentage change	-5.9	8.2	3.0	2.9	2.9	2.7
Outlays <sup>c</sup>						
Total national defence, current prices	265.8	282.2	299.1	322.3	344.8	366.3
Total Department of Defense, current prices	258.4	274.3	290.7	313.3	335.5	356.6
Total Department of Defense, constant (1987) prices	267.8	274.3	279.8	290.8	301.3	311.5
Percentage change	2.4	2.4	2.0	3.9	3.6	3.4

<sup>a</sup> National defence: A broader concept than Department of Defense activities, including military activities financed outside the DoD budget, mainly the design, testing and production of nuclear weapons (budgeted for under Department of Energy) and military construction.

<sup>b</sup> The inflation factors used to calculate constant dollars come from the Department of Defense deflator table, 3 Feb. 1986 (to be published).

<sup>c</sup> Outlays: The actual spending of money in cash or cheques during a given year. Includes net lending. Outlays are seldom identical to budget authority in any fiscal year because outlays spent during a year may be drawn partly from the budget authority conferred in previous years and budget authority includes funds which will be spent in future years.

Source: *SIPRI Yearbook 1986*, p.249.

Table 8.3 Estimates of Soviet Defence Expenditure

Source	Price base	Soviet Defence Expenditure				
		1976	1981	1983	1984	1985
Billions of Roubles						
USSR <sup>a</sup>	Current	17.43	17.054	17.054	17.054	19.063
CIA <sup>b</sup>	1970	-	70-75	-	-	-
Britain <sup>c</sup>	Current	-	84-92	-	-	-
Rosefielde <sup>d</sup>	1970	70.3	-	-	-	-
Billions of Dollars						
USSR <sup>e</sup>	Current	23.2	24.4	21.3	-	23.4
CIA <sup>f</sup>	1983	208	225	235	-	-
DoD <sup>g</sup>	1984	245	270	-	-	-
JCS <sup>h</sup>	1984	-	-	-	295	-

- a. Official declared budget.
- b. Joint Economic Committee, Allocation of Resources in the Soviet Union and China - 1982, Washington DC: USGPO 1983, p.79. Post-1981 rouble estimates using the new CIA methodology were classified and unavailable through the Joint Economic Committee at the time of going to press.
- c. Statement of Defence Estimates 1984, London: HMSO, Cmnd. 9227-1.
- d. Steven Rosefielde; False Science, Under-estimating the Soviet Arms Build-up, New Brunswick NJ: Transnational, 1982, pp.186-8.
- e. Official defence budget divided by official exchange rate.
- f. Central Intelligence Agency, Press Release: Soviet Defence Spending, 22 February 1985. Data calculated from released graph. The analysis was co-ordinated with the DoD.
- g. Department of Defense, FY 1984 DoD Program for Research, Development, and Acquisition, Washington DC: USGPO 1983, pp.1-7. Figures taken from graph.
- h. Organization of Joint Chiefs of Staff, Military Posture for FY 1986, Washington DC: USGPO 1985.

Source: IISS, The Military Balance 1985 - 1986, p 18.

between 13 and 15 per cent of GDP. That seems to be the general figure that is now accepted. It is perfectly true that the estimate of cost exchange ratios does indeed depend not just on roubles versus dollars but on total resource allocation, including technological capacities, number of laboratories and so on.<sup>7</sup>

8.9 Whatever the exact relative proportions of GNP committed to military expenditure by the superpowers, it is likely that the Soviet Union suffers greater social costs from its defence outlays than does the U.S. This is indicated in part by the fact that the Soviet Union's national product is substantially smaller than that of the U.S., while its military forces are roughly commensurate with those of its superpower adversary. A further apparent cause of this resultant social cost relates to the extent of the national development needs of the Soviet Union. Between them, military outlays and development investment restrict significantly the resources available to this centrally planned economy for housing, domestic transport and consumer durables. The 1981 UN report The Relationship Between Disarmament and Development, (The Thorsson Report), noted:

The need for greater investment in the fields of housing, construction, environmental protection and energy is shared by the centrally planned economies. Estimates released by the ECOSOC suggest that these economies will have to invest a relatively greater portion of their national incomes in the energy field in the coming decade than they have in the past. Between 1979 and 1990 these investments will need to rise from 3.2 per cent of net material product (NMP) (about 4.0 per cent of NMP including pipeline transport and distribution) to 3.7 to 3.8 per cent (about 4.4 to 4.5 per cent including transport and distribution). Energy is not the only field requiring greater investment in the centrally planned economies. Several studies about the economic prospects of these countries, including those submitted to the Group, repeatedly emphasize that one of the most profound obstacles to their full mobilization of all internal factors for development is the enormous diversion of resources currently claimed by the military outlays. The release of human resources from the military sector can relieve their labour shortages and the reallocation of material resources can speed up their process of industrialization with greater prospects for maximization of consumer satisfaction in their own societies besides enabling them to compete more effectively in international trade wherein their current share is not commensurate with their share in the global industrial output.<sup>8</sup>

8.10 There seems little doubt then, that military spending is a heavier burden on the Soviet economy than on the U.S. economy given the way in which the Soviet economy is currently organised. One witness suggested that the American SDI research program might serve as economic pressure for the Soviet Union to resume meaningful arms control negotiations (although the U.S. Administration has consistently denied that SDI is a 'bargaining chip'):

it is not self-evident either that the Russians can at one and the same time pursue the kind of offensive build-up that they have been engaged in for many years, and which has contributed significantly to that 14 per cent, or whatever it is, of GDP for military expenditure, and that they can at the same time develop the additional resources to emulate the kinds of developments that the Americans are doing in SDI.<sup>9</sup>

8.11 The major economic difficulties facing the Soviet Union have led to some speculation that a continuing arms race could threaten or ultimately result in a collapse of the Soviet economy. One possible implication is that, fearing economic collapse, the Soviet Union might seek meaningful arms control negotiations. Alternatively, it might engage in military conflict while it believes that it has a chance of winning. Some witnesses commented that the Soviet Union would continue to make whatever economic sacrifices were necessary to meet its perceived security needs including maintenance of an effective nuclear deterrent.

8.12 The Committee was also advised of economic dangers for the U.S. if it sought to 'spend the Soviets into the ground':

...you have to spend a huge amount of money in the United States, which means that you have to run very big deficits ... therefore you have the spectacle of your interest rates going up; which means of course that Third World debt problems get much worse; which means that the IMF comes in. You then have all sorts of austerity programs and instability in the Third World, giving the Soviets opportunities that they would otherwise have been denied. ... Of course, in the Soviet Union there is no hip pocket nerve to be voted against. It is not at all clear that the Americans can continue to run \$200 billion deficits and get away with it.<sup>10</sup>

#### Military Research and Development

8.13 A major, and increasingly significant, component of military expenditure is that devoted to research and development (R&D). The broad objective of military R&D is to extend knowledge

and technical expertise wherever there are thought to be military applications. In part R&D is directed towards ways of making the other side's weapons ineffective.

8.14 Military R&D contributes to increased military spending in two ways: it increases the speed of weapon replacement and, more importantly, it stimulates more R&D since once there is a new weapon the potential enemy begins work on countermeasures. In this way, research and development, with its large and permanent establishments, ready finance and links with the military and political bureaucracies is a major factor ensuring the continuation of the arms race. Also, according to the Quaker Peace Committee, Hobart:

Excess capacity is endemic in arms manufacture. Hence the internal pressure for 'improvements' of existing weapon systems, for their deployment into the armed forces, and for their sale to Third World nations.<sup>11</sup>

8.15 According to the Thorsson Report:

The absolute magnitude of expenditures for military research and development is extremely large and it remains by far the largest single objective of scientific inquiry and technological development. Global expenditures on military R and D in 1980 were probably of the order of \$35 000 million or approximately one quarter of all expenditures on R and D. Approximately 20 per cent of the world's qualified scientists and engineers were engaged in military work during the 1970s. It has been estimated that the average military product is some 20 times as research-intensive as the average civil product ... military R and D expenditure is even more highly concentrated than total R and D. While six countries account for about 85 per cent of total R and D, just two countries account for a similar share of military R and D.<sup>12</sup>

8.16 It has been claimed that although military R&D accounts for around one tenth of total world military expenditure, it exhausts about one quarter of the world's expenditure that goes towards all kinds of R&D<sup>13</sup>. For example, defence is said to account for half of all public research in Britain and the United States and more than a third in France. Britain is reported to spend more on defence R&D than all the OECD countries together spend on civil research. The apparent reduction in new civilian investment funds and overall economic productivity caused by high levels of military R&D is referred to later in this Chapter as is the issue whether or not military R&D provides significant civilian applications.

### Military Expenditure by Other Countries

8.17 As noted early in this Chapter, developing countries on average are increasing their military expenditure, in relative terms, faster than developed countries. This worrying development was highlighted by the Minister for Foreign Affairs in his Evatt Memorial Lecture in July 1983:

The global pattern of military expenditure is changing. The past decade has seen growing defence expenditure in the Third World, thereby diverting much needed resources from development into unproductive spending on armaments. Roughly 75 per cent of the global trade in conventional arms during the 1970s consisted of deliveries to the Third World.

Over the 1970s the military expenditure of developing countries rose by 6 per cent a year in real terms, compared to one per cent in developed countries. The developing countries' share of global military expenditure increased from 19 per cent in 1971 to 25 per cent in 1980.<sup>14</sup>

8.18 A measure of the economic burden of military spending can be had by comparing Military Expenditure (ME) with either Gross National Product (GNP) or Central Government Expenditure (CGE). Table 8.4 lists the ten countries in 1980 having the largest share of CGE directed to military expenditure. 1971 ratios are provided for comparison. Five of the ten countries have per capital GNP of less than \$3 000 including three (the two Yemens and Ethiopia) with less than \$1 000. Further statistics in the ACDA report confirm its conclusion that factors other than per capita wealth determine the share of resources devoted to the military. In other words, numerous poorer countries are, in relative terms, among the largest military spenders.<sup>15</sup>

8.19 Chapter 7 describes the increasing expenditure by other developing countries such as South Korea, India and Pakistan, and by five Middle East countries which account for almost half of all Third World arms imports. That Chapter also detailed the international arms trade and the involvement of developed countries in that trade.

### Economic Implications of Military Spending

#### (a) Implications for Developed Countries

8.20 In Western industrialised countries there is considerable debate about the economic wisdom of, on the one hand, current levels of spending on arms and, on the other hand, of cutting back on such expenditure. It is suggested that greater defence spending now will damage the American economy, that it will increase the already large budget deficit, that it will add

Table 8.4 Countries with Highest Ratios of Military Expenditure to Central Government Expenditure 1971 and 1980

Country	(Percent)	
	1971	1980
Soviet Union	67.3	48.3
Yemen (Aden)	44.4	45.7
Oman	35.0	44.0
Ethiopia	21.2	42.6
United Arab Emirates	43.0	41.4
Syria	29.1	35.4
Israel	42.1	34.2
Bulgaria	26.8	33.8
Yemen (Sanaa)	31.0	30.0
South Korea	25.7	28.4
United States	38.1	23.9
Australia	20.6	11.5

Source: US Arms Control and Disarmament Agencies, World Military Expenditure and Arms Transfers, 1971-1980, p.29.

to inflation and will direct resources and investment away from other sectors of industry and so dampen the prospects for future economic growth. The Quaker Peace Committee in its submission refers to economist J.K. Galbraith:

J.K. Galbraith outlines how roughly \$1 000 billion (SUS 1976) was spent on highly specialised technology for missile, aircraft and marine weapons systems in the decade 1970-1980. This massive transfer of capital away from civilian industry eroded the U.S. economy:

'As we pressed ahead on a narrow band of industry that serves our weaponry, we have left behind, left competitively vulnerable, our steel, automobile, textile, chemical and a great range of other industries'.

This starvation of capital in key industries was an important factor in allowing other countries, notably Germany and Japan, to compete successfully. These nations spent a smaller share of GNP on armaments and correspondingly invested more in civilian production.<sup>16</sup>

8.21 This view that high levels of military expenditure are economically harmful even to developed countries was also supported by the Thorsson Report:

Steadily high or increasing military outlays are likely to have a depressing effect on economic growth, directly through displacement of investment and indirectly through constraints on productivity which itself depends to a considerable degree on the R and D effort currently biased in favour of military technology. The coexistence of high levels of military spending and high rates of economic growth in the past cannot be taken as evidence of a causal relationship between the two. The availability of unutilized and under-utilized resources among the less developed economies may produce short-term results suggesting a parallelism between high rates of growth and significant military spending. But in the long term, the totality of adverse socio-economic consequences of sizeable military outlays outweigh any immediate spin-offs.<sup>17</sup>

8.22 There are, however, other perspectives on the economic implications of reducing military expenditure. Proponents of President Reagan's strategic modernisation program say that increases in military spending can be offset by cuts elsewhere in federal expenditure. They also argue that the proposed level of military expenditure under the Reagan Administration program (7-8 per cent of GNP) is less than average military expenditure in the 1950s. Others consider that the level of military expenditure under President Reagan has had the effect of invigorating the economy. That is, contrary to the suggestion of the Thorsson Report, the coexistence of high levels of military spending and economic growth may indicate that the former stimulates the latter. It has been suggested that in that event the Reagan Administration has in fact adopted a neo-Keynesian policy through military outlays and that it is being successful. On this analysis, reductions in the American defence budget could cause contractions in the economy.

8.23 Whatever may prove to be the truth about this problem of cause and effect, it is undeniable that military-related industries generate employment and economic growth in the communities in which they are situated. Their closure would likely entail significant dislocation in personal, civic and national economic terms. For any developed country whose economy is significantly dependent on the manufacture or export of arms, the industrial transition to any significant world-wide reductions in force levels will require successful structural adjustment and considerable national economic planning. Recognising these problems, and that they may themselves hinder any arms reduction process, the Thorsson Report has detailed ways to approach adjustment. These include reallocation of resources from armaments to development, and investment in developing countries.<sup>18</sup>

8.24 The Thorsson Report suggests that the problem of converting assets from military to civilian purposes is so difficult that preparing for its solution must proceed now: the report argues that solutions must be identified prior to agreement on disarmament measures. While the problem is difficult, the report claims that it is not insurmountable for two main reasons. First, conversion and redeployment is not a phenomenon uniquely associated with disarmament. In modern industrial economies, the factors of production must respond continuously to the development of new products and new production techniques. Second, a significant part of military demand is directed at goods and services that are essentially identical to those consumed in the civilian sector. Significantly, the Thorsson Report also examined particular ways in which financial resources could be transferred from military to civilian applications. The report gave particular consideration to the French proposal (made at the Tenth Special Session of UNGA) for the establishment of an international disarmament fund for development.

(b) Implications for Developing Countries

8.25 The harmful economic and social impact of excessive military expenditure especially in developing countries was the

subject of numerous submissions to the inquiry, and has been investigated in several recent international reports. According to this perspective even if the superpowers could afford their current levels of expenditure without undue strain on domestic or international funding programs, their mutual security perceptions would still be at the expense of many lost development opportunities for the Third World.

8.26 For example, it is generally recognised that in developing countries, military technologies divert a disproportionate amount of skilled labour as well as limited investment funds away from civil industry and research. Claims that military expenditure and R&D providing substantive civilian spin-offs are said to be exaggerated. The UN report on the Economic and Social Consequences of the Arms Race considered military technology to be moving further away from possible civilian applications.

8.27 Military imports, especially higher technologies, can contribute to a country's balance of payment problems. Whereas a large proportion of arms import costs were once met by exporting countries as military aid, developing nations are now expected to meet a much higher proportion. This reduces their capacity for buying investment goods, financing economic growth or meeting short-term social and economic needs. The costs to developing countries of their arms imports (indeed of all their credit purchases) are increased by the impact on international interest rates of high military-related budget deficits in developed countries. The maintenance of high and rising military expenditure in the face of stagnating or falling government revenue may lead even developed countries to economise in such areas as health, education and welfare.

8.28 The maintenance of large military forces and R&D projects diverts considerable financial resources from other, potentially more effective, investment areas and so limits economic development and growth. The UN study on Economic and Social Consequences of the Arms Race noted:

If the greater part of world military expenditure could, instead, be allocated to investment, growth rates might be expected to increase by 1 or 2 per cent. If such higher rates of investment are sustained, the effects on growth cumulate over the years. Thus, if half the funds spent on armaments throughout the world in the period 1970-75 had instead been invested in the civilian sector, annual output at the end of this period could have been perhaps \$200 billion larger than it was. The sum of \$200 billion is somewhat more than the aggregate GNP of Southern Asia and the mid-African region, the two large regions of acute poverty and slow growth in the world, with a total population of over one billion people.<sup>19</sup>

8.29 However, the most fundamental economic consequences of high global military expenditure is the waste of limited resources; this was an argument basic to numerous peace group submissions to the inquiry. The world-wide military expenditure of some \$900 billion per year represents a massive diversion of resources - financial, material and skilled manpower - away from areas of economic and social need. The United Nations report documents this misuse of resources and its deleterious effects. The report notes for example that public expenditure on health world-wide only amounts to about 60 per cent of military expenditure and that the resources devoted to medical research are only one fifth of those devoted to military research and development. This theme has been repeated in the report of the Independent Commission on Disarmament and the report of the Brandt Commission: North-South: A Programme for Survival (1980).

#### Conclusions

8.30 Various reports have argued that defence expenditure can result in reduced economic growth. The Thorsson report suggested that this was the case because military outlays fall into the category of consumption and not investment. Of course, reduced economic growth can be responsible for higher levels of ill-health and poverty than need otherwise be the case. Significantly, a number of nations that endure very low standards of living are increasing their military expenditures at a faster rate than the developed nations. The adverse economic and social consequences of military outlays are affecting most the nations that can least afford relatively large military budgets.

8.31 It is not difficult, then, to draw the conclusion that these developing countries ought to spend less on their military forces. The problem, however, lies in assuring them that such expenditures are not necessary. It may be possible to convince some of them that over the medium term their security against other states can be assured without high military spending. It is very questionable, however, whether many such states can be convinced that their internal security problems can be solved without the presence of well-equipped military forces. Unfortunately a number of national leaders of such countries would consider their hold on national power to be contingent upon the maintenance of strong armed forces.

8.32 Perhaps one tempting solution to this problem would comprise an agreement amongst the arms-supplying nations not to sell high cost military equipments to developing countries. The difficulties facing the achievement of such an agreement, however, are forbidding. First, many of the wide range of arms-supplying nations would regard it as an unreasonable restriction on their rights of international trade to be constrained from arms deals with developing countries; they would consider the proposal to be economically unacceptable. Second, it could be very difficult to differentiate 'military' equipment from many other types of equipment; many trucks, aircraft and boats designed for civilian use could be adapted for military purposes and could not be denied to developing countries. Third,



developing countries would regard the denial of significant military equipments as an attack on their legitimate defence requirements. They would consider it to be a chauvinistic move by the developed world to reduce their status and security. Fourth, they could commission their own factories for developing and manufacturing indigenous military equipments, perhaps employing foreign weapons technicians on contracts. Fifth, the black market arms dealers would likely find ways of supplying the developing nations with much of the military equipments they were being denied through legitimate channels.

8.33 If obstacles such as these lie in the way of arms control agreements restricting arms sales to the developing nations, moves to curtail the level of their military expenditure will need to rely on diplomacy and persuasion. Failure to convince the national leadership of these states that internal security is best assured through high standards of living and health services would entail that one rationale for their present military outlays would continue. The other rationale, international security, would likely continue for most states in any event.

8.34 Turning to the developed nations, are there any prospects of reduced military expenditure in pursuit of economic benefit? Here the outlook is similarly bleak. The Soviet Union, for instance, has demonstrated a firm resolve to make domestic economic sacrifices in order to achieve and maintain military forces of superpower strength. Indeed the Soviet Union appears to have determined that it will pursue its military objectives even at enormous economic cost because it recognises that it cannot achieve superpower status in economic terms. In Moscow's assessment, the economic gain to the Soviet Union in reducing significantly its military outlays would not compensate for the international significance that it had lost through military reductions. For the Soviet Union, military power is the only guarantee of its superpower status; by that calculus, the enormous economic cost of its military establishment is a relative bargain.

8.35 Because of its economic dominance, the U.S. theoretically has the option of attempting to drive the Soviet Union into economic disarray through an arms race. The Soviet Union has to be cautious that in preserving its superpower status by military means it does not become economically brittle. It is perhaps with this in mind that the Soviet Union is attempting to constrain the American SDI program and has offered significant reductions in offensive strategic arms provided that SDI is limited. To this point the Reagan Administration has shown no willingness to limit its SDI options. Failure to negotiate an agreement at Geneva that included SDI could result in enormous Soviet spending to match the American program. By design or otherwise, the U.S. could be tending to press the USSR to its limits on military expenditures. American relations with such a weakened Soviet Union would doubtless prove very difficult to manage. We have noted the reasons why the superpower competition would become less stable.

8.36 Overall, then, the problem of military expenditure can have very significant implications. While these are widely

recognised, the difficulties associated with expenditure reductions have tended to discourage most nations from seeking solutions. These difficulties were highlighted by an Australian defence expert:

The United Nations study on the reduction of military budgets at the moment is very much a tentative study ... At this stage, only 10 nations have agreed to participate in the preliminary phase of it. There are no East European nations and there are no developing nations ... The study at this stage is really concerned with looking at comparative budgets to see if there is any way of comparing them ... hopefully ... from that they would have to look at whether nations are prepared to move into actually reducing their military budgets in a comparative way. That is an awfully long way downstream.<sup>20</sup>

Further, most nations will take the approach that military budgets should only be reduced so far as national security will allow. The Department of Foreign Affairs advised that:

The Government is committed to the principle of reduction of military budgets, provided this can be achieved in ways which would not endanger national security. In this respect Australia makes available to the United Nations Secretary-General each year the details of its military expenditure in the form of a standardised reporting instrument which has been developed by the UN. It is one of few countries willing to do so. The Government is also cooperating with a United Nations study group which has been established to work out ways and means of making valid international comparisons of military budgets. Positive and acceptable results from this group will be essential if the problems of standardizing the meaning of military expenditures, of comparing prices cross nationally and of monitoring agreed reductions, which have plagued past proposals to reduce military budgets, are to be overcome.<sup>21</sup>

CHAPTER 8  
ENDNOTES

1. Hon. Bill Hayden, Evatt Memorial Lecture, 7 July 1983, published in Australian Foreign Affairs Record, July 1983, p.343.
2. Alva Myrdal, former Swedish Minister for Disarmament and 1982 Nobel Peace Prize winner 'The Game of Disarmament' 1977, p.7.
3. Australian Foreign Affairs Record, p.343.
4. Australian Foreign Affairs Record, p.343.
5. SIPRI Yearbook 1986, pp.249-261.
6. The International Institute for Strategic Studies, The Military Balance 1985-1986, London, 1985, p.17.
7. Evidence, 20 May 1985, p.950.
8. United Nations Centre for Disarmament, The Relationship between Disarmament and Development, New York, 1982, p.89.
9. Professor H.G. Gelber, Evidence, 20 May 1985, p.951.
10. Andrew Mack, Evidence, 9 August 1984, p.501.
11. Quaker Peace Committee, Submission, p.5744.
12. The Relationship between Disarmament and Development, p.158.
13. SIPRI Yearbook 1984, p.165.
14. Quoted in Australian Foreign Affairs Record, July 1983, p.343.
15. U.S. Arms Control and Disarmament Agency (ACDA), World Military Expenditures and Arms Transfers 1971-1980, p.28.
16. J.K.Galbraith, 'The Economics of the Arms Race - and After,' Bulletin of the Atomic Scientists 1981, V.37, 6, pp.13-16. See also Dan Smith and Ron Smith, Economics of Militarism, 1983, cited in Quaker Peace Committee, Hobart, Submission, p.5741.
17. The Relationship between Disarmament and Development, p.159.
18. See The Relationship between Disarmament and Development, Chapters V and VI.
19. United Nations Department for Disarmament Affairs, Economic and Social Consequences of the Arms Race and of Military Expenditures, New York, 1977, p.43.
20. Air Commander Turnbull, Evidence, 23 May 1984, pp.71-72.
21. Department of Foreign Affairs, Submission, p.518.

## CHAPTER 9

A SUMMARY OF AUSTRALIA'S PRESENT POLICIES AND  
ACTIVITIES ON DISARMAMENT AND ARMS CONTROL

9.1 The next two chapters of the Report deal with Australia's present contribution to disarmament and arms control and the maintenance of international security and peace. This Chapter provides a brief summary of our current policies on disarmament and arms control and what we are doing in the United Nations and elsewhere to implement them. Chapter 10 examines some of the criticisms which were raised in submissions to the inquiry.

9.2 According to the Department of Foreign Affairs, Australia's role in arms control and disarmament is a matter of our international influence and what we are able and willing to contribute to international activities relevant to these objectives. In describing the first part of this role, the Department argued that arms control and disarmament cannot be imposed on nations, they can only be achieved through agreement between the countries concerned. As a result, Australia's general role in disarmament is seen to be a question of the influence we can bring to bear and the contribution we can make, together with other countries, to bring about general agreement in the international community and particularly between the two so-called 'superpowers'.

9.3 The Department recognised that Australia's effectiveness in this role is limited by our strategic isolation and, more generally, by the desire of independent states to ensure national security.

No country will disarm, nor accept controls on its weapons, unless it is satisfied that in so doing it is making itself no less secure. Indeed, it will have to be satisfied that none of its essential interests are jeopardised ... Even a government like Australia's, firmly dedicated as it is to arms control and disarmament, must carefully consider any proposal, to evaluate its full range of consequences and implications.<sup>1</sup>

9.4 As a consequence, the Department argued that arms control and disarmament is necessarily a matter for negotiation and carefully worked-out agreements, which take account of all the concerns of all participating governments. Moreover, arms control and disarmament measures need to be 'balanced' so that no party is unduly favoured by the proposed changes. This is especially so in cases where:

... mutually hostile and suspicious countries confront each other, [and] the security of all concerned is dependent on the preservation of a

delicate, perhaps even precarious, stability which is likely to be upset by unilateral measures of disarmament or measures which favour one side against the other. This is a question of both military balance and of the political confidence which flows from such balance.<sup>2</sup>

The Department further argued that an essential ingredient in the establishment and maintenance of confidence in the arms control process is verification, which is the means to confirm that all parties to an agreement are behaving in accordance with its provisions. Verification forms the most important aspect of Australia's contributions to international activities relevant to disarmament and arms control. These include the direct contribution we make to the preservation of stable deterrence and to the verification of arms control agreements through Australia's hosting of the joint Australia-United States facilities.

9.5 Underlying both approaches is the belief that the prospect of global nuclear war is very small, due principally to the continuing durability of nuclear deterrence.

... it is the Government's assessment that the likelihood of global nuclear war occurring is remote. In this respect the Government attaches particular importance to the continuing durability of nuclear deterrence. In the absence of a better system of restraint on nuclear weapons the Government believes that deterrence is the only practical option available to avoid serious international nuclear instability and overt nuclear conflict.<sup>3</sup>

This assessment was supported by the recent Review of Australia's defence capabilities (The Dibb Report) which concluded that global war between the superpowers is most unlikely and that Australia's best protection against the risk of nuclear war 'is a government policy of support for the system of mutual deterrence and effective arms control'.<sup>4</sup>

9.6 The Government also attaches particular significance to Australia's relationship with the United States and, more broadly, our place within the Western alliance. The Department of Foreign Affairs stated that these continuing relationships have 'an important influence on our position in international relations'. Such an alignment was said to be more than a matter of political or military convenience, it also reflects the 'political and social values of the nation'. To emphasise this point, the Department cited a speech made by Foreign Minister Hayden in July 1983 in which he stated that the U.S. alliance is not only an ultimate guarantee to Australia but reflects 'a dynamic relationship between sovereign and equal partners who

share the most fundamental values'.<sup>5</sup> These shared values include a common commitment by all Western nations to the principles of democracy, rule of law, universal human rights including the right of self-determination of all peoples. The convergence of Western strategic interests was also emphasised by the Prime Minister to the Washington Press Club on 15 June 1983. Mr Hawke stated:

Australians are in no doubt that the ANZUS Treaty supports Australia's security in current and prospective strategic circumstances and reflects a coincidence of strategic interest between Australia and the United States. This coincidence of interest provides the basis of cooperation which yields substantial benefits for Australia's defence efforts which, in return, affords substantial benefit to the United States. The benefits are mutual and reciprocal. The treaty provisions do not derogate from Australia's right of national decision-making in foreign and defence policy. The risks involved for Australia in relation to the hosting of the joint defence facilities on our soil have to be balanced against Australia's interest in supporting the United States' global deterrent effort and her prime contribution to the global strategic balance.<sup>6</sup>

9.7 In spite of its strong support for nuclear deterrence and the U.S. alliance, the Government is nonetheless concerned about the 'tragic misapplication of money, resources and human ingenuity' to armaments in general, as well as the specific threat posed by the existence of nuclear weapons. It also believes that nuclear deterrence is not an infallible system of international security and strategic stability. Accordingly, the Government has as its eventual objective the ultimate removal of the nuclear threat through the elimination of nuclear weapons. As the Foreign Minister, Mr Hayden, stated in 1984:

The Australian Government is committed to complete nuclear disarmament. Its policy is the same as, and is precisely described by, the Palme Commission report and recommendations concerning disarmament. The report states: 'Nuclear deterrence cannot provide the long-term basis for peace, stability and equity in international society. It must be replaced by the concept of common security. The conclusion is therefore inevitably that nuclear weapons must be eliminated'. It continues: 'A doctrine of common security must replace the present expedient of deterrence through armaments. International peace must rest on a commitment to joint survival rather than a threat of mutual destruction'.<sup>7</sup>

Mr Hayden went on to say that 'complete nuclear disarmament will not happen overnight' and that 'in the interim, and as a step on the road towards the goal of total nuclear disarmament, nuclear deterrence is the only viable existing option'.<sup>8</sup>

9.8 The Government further recognises that certain developments are in hand which could disturb the central balance between the superpowers and so upset stable deterrence. These developments include new technologies, which provide for the attainment of greater accuracy in nuclear weapons and of more sophisticated and allegedly more survivable command, control, communications and intelligence capabilities, as well as doctrinal advances which are giving credence to the possibility of limited nuclear war fighting.

9.9 With these overall considerations in mind, the Government took a number of policy decisions in November 1983 on arms control and disarmament. These were as follows:<sup>9</sup>

- a. to promote measures to halt and reverse the nuclear arms race;
- b. to uphold the international nuclear non-proliferation treaty;
- c. to promote a comprehensive and verifiable ban on nuclear testing;
- d. to develop the concept of a nuclear free zone in the South Pacific;
- e. to support the achievement of an agreement to ban chemical weapons;
- f. to support the process of negotiation and the achievement of balanced and verifiable arms control agreements;
- g. to take an active role in pursuing arms control and disarmament measures wherever possible; and
- h. to affirm Australia's readiness to join a consensus to hold an international conference on the Indian Ocean zone of peace question.

These policies embrace three broad strategies for achieving Australia's overall objectives: the control of nuclear arms, the control of other weapons, and support for multilateral disarmament machinery. Many of these initiatives have been supported by successive governments.

#### Control of Nuclear Arms

9.10 Australia's policies for controlling nuclear arms cover a broad range of policies and activities including bilateral negotiations between the superpowers, the nuclear freeze, the deployment of weapons in outer space, nuclear testing, the

horizontal proliferation of nuclear arms, and nuclear free zones. Most of these issues are discussed in detail in other areas of the Report. The following is a summary of Australia's efforts and initiatives in each of these areas, together with references to any detailed discussion and Committee views that are contained elsewhere in the Report.

9.11 **Bilateral Nuclear Arms Negotiations.** The Australian Government has urged the nuclear weapon states to halt the arms race and reverse it. The Government has consistently advised both the U.S. and the Soviet Union to limit and reduce their weapons stockpiles. It has encouraged both superpowers to continue to recognise and abide by the SALT agreements (including the 1972 ABM Treaty) even though SALT II expired at the end of 1985. The Government has also encouraged the superpowers to pursue the negotiation of new arms control agreements to limit their offensive forces, and to halt the seemingly endless competition in the production and deployment of nuclear weapons. The Department of Foreign Affairs noted that Australia is not a party to the negotiations between the superpowers, 'but the Government is doing what it can to encourage progress and to break down the barriers of mistrust and suspicion between both sides'.<sup>10</sup>

9.12 **Nuclear Weapons Freeze.** According to the Department of Foreign Affairs, the Australian Government is attracted to a freeze proposal in principle, provided that the freeze is mutually agreed and 'adequately' verifiable. It stated that the Government will support a freeze only where it does not entail a continuing advantage for one side. These concerns led Australia to initially vote against or abstain from nuclear freeze resolutions that were presented to the United Nations General Assembly. In November 1984, however, Australia voted for the first time in support of a nuclear freeze. Australia's Ambassador for Disarmament, Mr Richard Butler, explained at the time that the changed vote gave 'expression to the support of the Australian Government and people for the broad aspirations of a freeze'. The Committee's views on the nuclear freeze are presented in Chapter 10.

9.13 **Weapons in Outer Space.** The Government supports the use of outer space and all celestial bodies for peaceful purposes only. It opposes any military bases, installations, fortifications or weapons in outer space, and supports the objective of international agreements to prevent the testing and development of such systems in outer space. To this end, it has:

- stated that it does not 'endorse' the U.S. Strategic Defense Initiative (SDI) program, and will not contribute to research being carried out under the program (Chapter 12);
- proposed that the Conference on Disarmament consider the possibility of measures to protect from attack all satellites which contribute to the preservation of strategic stability and which can be instrumental in monitoring disarmament agreements, and extend the same

protection to the ground stations which are essential to the operation of these satellites (Chapter 13); and

- supported the establishment of an Ad Hoc Committee in the Conference on Disarmament to examine 'issues relevant to the prevention of an arms race in outer space, taking into account all existing agreements, existing proposals and further initiatives' (Chapter 13).

9.14 **Comprehensive Test Ban (Chapter 14).** One of Australia's primary objectives in contributing to curbing the nuclear arms race has been to promote a comprehensive nuclear test ban (CTB) which would outlaw all nuclear testing by all states in all environments for all time. In the Government's view, the conclusion of a CTB would help to put strong pressure on France to cease its testing program in the Pacific, inhibit horizontal proliferation, and prevent the development of new nuclear weapons or the improvement of existing weapons by the nuclear powers. Australia has been active on this issue both in the United Nations and the Conference on Disarmament, and in bilateral discussions with the nuclear weapons states.

9.15 Australia has played a major role in seeking to solve procedural obstacles to the re-convening of a committee of the Conference on Disarmament to consider a comprehensive test ban treaty. To this end, Australia and New Zealand have sponsored a resolution in the United Nations General Assembly calling on the Conference (in a 1984 resolution) to begin immediate negotiations on a CTB. Australia has also developed a proposed mandate and program of work for such a committee.

9.16 Australia has been active in the Conference on Disarmament's Ad Hoc Group of Scientific Experts to consider International Cooperative Measures to Detect and Identify Seismic Events (Chapter 14). It is also in the process of establishing an extended seismic monitoring facility in Australia which could be used to detect and gauge nuclear explosions throughout the world.

9.17 **Nuclear Non-Proliferation Treaty (NPT) (Chapter 5).** Under this Treaty, which was signed in 1968, countries which do not have nuclear weapons relinquished their acquisition and accepted an international safeguards system to prevent the diversion of nuclear material from peaceful to military use. The nuclear weapons states undertook to negotiate in good faith towards nuclear disarmament and to transfer nuclear technology for peaceful uses to non-nuclear weapon states. An important component of the NPT is that all present and future nuclear activities of the non-nuclear weapon states are required to be subjected to International Atomic Energy Agency (IAEA) safeguards and procedures.

9.18 Australia is a signatory to the NPT and has been actively engaged in promoting the universal acceptance of the Non-Proliferation Treaty and working for a successful outcome to

its Review Conferences. The Australian delegation played a significant role in the success of the 1985 NPT Review Conference.

9.19 Australia has provided nuclear technical assistance directly to other NPT parties and through the IAEA. It holds a seat on the Agency's Board of Governors and provides expert assistance, as well as financial support to a number of IAEA programs and specialist working groups, including the Standing Advisory Group on Safeguards Implementation. It has recently enacted legislation relating to anti-dumping and additional nuclear safeguards.

9.20 **South Pacific Nuclear Free Zone and the Indian Ocean Zone of Peace (Chapter 16).** Australia was instrumental in having the nuclear free zone concept considered by the South Pacific Forum at its meetings in 1983 and 1984. It chaired a Working Group which produced a draft South Pacific Nuclear Free zone Treaty for consideration by the 1985 Pacific Forum meeting and signed it at Rarotonga on 6 August 1985 following adoption by the Forum. Legislation covering the SPNFZ was introduced into the Australian Parliament in June 1986, and passed through the House of Representatives on 21 August 1986 when it was referred to the Senate.

9.21 Australia plays an active role in the United Nations Ad Hoc Committee on the Indian Ocean. Work is proceeding in the Committee on a draft agenda for a conference on an Indian Ocean Zone of Peace proposal. The Government also supports the resumption of United States/Soviet talks on arms limitation in the region and is willing to support other arms limitation initiatives where these accord with Australia's assessment of its own interests and those of the region as a whole.

#### Control of Other Weapons

9.22 **Conventional Weapons.** Another strong concern of the Government is the scale of international trade in conventional weapons. Since the end of the Second World War, between 4 to 7 per cent of the world's GNP has been devoted to military expenditure where the major portion of this - around 75 per cent - has been spent on conventional armaments and forces. Over 60 per cent of the total trade (estimated by SIPRI to be \$US 7.1 billion - in 1975 prices - in 1985) in major conventional weapons has been to the Third World.<sup>13</sup> The Australian Government is concerned by the security, economic and humanitarian aspects of the continuing trade in conventional weapons. In a speech at the University of Western Australia the Foreign Minister, Mr Hayden, asserted that:

we will be more active in the search for ways to reduce this flow of arms. Action will be taken aimed at stopping black market trade in arms. Military budgets must be reduced. As I indicated in my speech to the UN General Assembly we

consider these three goals are ideal subjects for consideration by the United Nations.<sup>14</sup>

Accordingly the Government is committed to the principle of reduction of military budgets. It has agreed to provide the UN Secretary-General with a summary of Australia's military capabilities and makes available to the United Nations Secretary-General each year the details of its military expenditure in the form of a standardised report which has been developed by the UN. (To date only nine countries other than Australia have agreed to participate. These are the United States, the United Kingdom, Canada, the Federal Republic of Germany, Italy, Austria, Norway, Sweden and Finland).<sup>15</sup> The Government is also cooperating with a United Nations study group which has been established to work out ways and means of making valid international comparisons of military budgets.

9.23 **Chemical Weapons.** Australia is also committed to eliminating chemical weapons, and is making special efforts to help develop an effective and verifiable international convention which would outlaw the development, production, stockpiling, manufacture, storage and use of such weapons. To facilitate this objective, Australia has:

- . participated actively in negotiations on a comprehensive chemical weapons convention in the Conference on Disarmament;
- . nominated the Materials Research Laboratory of the Department of Defence for inclusion on the UN Secretary-General's list of experts and laboratories being compiled to assist in the investigation of reports of the use of chemical weapons, and made available an expert to assist in the investigation of allegations concerning the use of chemical weapons in the Iran/Iraq war;
- . provided funds to strengthen Australia's capacity to participate in negotiations on a comprehensive chemical weapons convention and to upgrade Australia's indigenous capacity to analyse samples of alleged chemical weapons; and
- . introduced controls on the export of certain chemicals which could be used in the manufacture of chemical weapons, and encouraged other countries to take similar action.

9.24 **Inhumane Weapons.** The Government has ratified the Inhumane Weapons Convention which seeks to prohibit or restrict the use of such devices as fragmentation weapons, mines and booby traps, incendiary weapons and other types of weapons considered to be inhumane.

9.25 **Damage to the Environment for Military Purposes.** The Government is working to ratify the Convention on the Prohibition of Military or other Hostile Use of Environmental Modification Techniques. Such phenomena may involve changes in ocean currents, earthquakes or changes to the ionosphere.

#### Support for Multilateral Disarmament Machinery

9.26 **The United Nations General Assembly and Security Council.** The Government is committed to the arms control and disarmament goals of the United Nations, both as enshrined in the UN Charter and in the substantial fabric of international law that has been developed since the United Nations came into existence. Australia has a long history of significant involvement in the UN. Australia's former Foreign Minister, Dr H.V. Evatt, played a central role in the founding of the United Nations Organisation, and he was centrally involved in the drafting of the UN Charter at the San Francisco Conference in 1945. Dr Evatt was President of the General Assembly at its third Session in 1948. The first permanent mission accredited to the UN in New York was that of Australia. The first President of the Security Council was an Australian.

9.27 Since Australia again took up its seat on the Security Council in January 1985, it has sought to promote working methods that would assist the settlement of disputes. Australia has given strong support to the Secretary-General in his capacity to mediate over disputes and conduct fact-finding missions. During 1985 Australia called for more extensive use of private meetings of the Security Council; this would facilitate the resolution of disputes and reduce the opportunities for point-scoring and polemics.

9.28 Australia has adopted similar policies in the General Assembly. Along with other nations, Australia is seeking ways to review the agenda so that the Assembly will reduce its tendency to repeat resolutions that have little point. Australia is also seeking to promote administrative reform and to restrain the growth of UN budgets. According to the Department of Foreign Affairs<sup>16</sup>, Australia judges proposed UN resolutions in terms of:

- a. whether a particular initiative is likely, ultimately, to lead towards viable, balanced disarmament measures, protective of every country's national security;
- b. whether draft resolutions seek to score points, promote propagandistic aims or sow discord rather than improving the atmosphere for negotiations; and
- c. whether a draft resolution is likely to attract consensus.

Accordingly, an abstention has been used on a number of occasions to signify that while the Government supported the apparent objective of a draft resolution, it could not support important aspects of wording. The Department noted that Australia's vote on an issue could thus change as the wording of particular resolutions changed, or it may vote differently on the same issue in different forums. The most notable example of this was the nuclear freeze proposal. Over the past few years

Australia has moved from a negative vote to an abstention to a vote in favour of a nuclear freeze.

9.29 The Conference on Disarmament (CD). The Government gives strong support to the United Nations' Conference on Disarmament (CD) of which it is a member. The 40-nation CD was created in 1978 from the earlier Conference of the Committee on Disarmament and is the multilateral disarmament negotiating forum for the United Nations. It meets annually in Geneva for two sessions of approximately three months each. Each year the Conference establishes subsidiary committees to consider issues of importance. In 1986, the Conference agreed to establish committees to negotiate on chemical and radiological weapons, prevention of the militarization of outer space, a comprehensive disarmament program, and negative security assurances. Progress in each of these areas is discussed elsewhere in the Report.<sup>17</sup>

9.30 The Government's broad objectives in the CD are to make progress towards balanced, verifiable and effective measures of arms control and disarmament and to strengthen the international nuclear non-proliferation regime. The poor climate in international relations that has prevailed since the late 1970s has made progress difficult in the CD and no treaties have been reached in its eight years of existence. Nevertheless the Government believes that this is all the more reason to seek whatever incremental gains are possible.

9.31 Australia has attached special priority to the negotiation in the CD of a comprehensive nuclear test ban treaty and a new convention to outlaw chemical weapons. Other issues that have been considered by the CD include the arms race in outer space, the prevention of nuclear war, so-called 'negative security assurances' (guarantees by nuclear weapon states that they will not use or threaten to use nuclear weapons against non-nuclear weapon states, for example), a comprehensive program for disarmament, and radiological weapons. Many of these issues failed to achieve even a negotiating mandate despite the efforts of the Australian delegation.

9.32 United Nations Disarmament Commission (UNDC). Australia is an active participant in the United Nations Disarmament Commission. Originally established in 1952, the Disarmament Commission was reinstated in 1978 by the First United Nations Special Session on Disarmament. The UNDC's function is to consider and make recommendations on various disarmament problems. Unlike the CD, which is a negotiating body, the UNDC seeks to follow up relevant decisions and recommendations of the UN General Assembly.

9.33 The UNDC meets annually for a four week session and is composed of all UN Member states. It therefore provides a forum especially dedicated to disarmament for states which are not members of the CD. Its agenda in 1986 included<sup>18</sup>:

- nuclear and conventional disarmament;
- the reduction of military budgets;
- the nuclear capability of South Africa;
- confidence building measures;
- naval arms race; and
- review of the role of the United Nations in the field of disarmament.

Australia's Ambassador for Disarmament Mr Richard Butler was elected one of the Vice-Chairmen of the Commission for 1986.

9.34 The World Disarmament Campaign. The World Disarmament Campaign was launched in June 1982 by a unanimous decision of the General Assembly at the second special session devoted to disarmament. The Campaign seeks to inform, educate and generate public understanding and support for the objectives of the United Nations in the field of arms control and disarmament. It was agreed that the Campaign should focus on elected representatives, media, non-governmental organisations, educational communities and research institutes, and that it should be carried out in all regions of the world in a balanced, factual and objective manner. By August 1984, thirty five countries had made pledges to the Campaign totalling \$US3.4 million. In 1984 the program of activities under the Campaign was financed from both the regular budget of the United Nations and voluntary contributions by member states.

9.35 The Australian Ambassador for Disarmament, Mr Richard Butler, was elected President of the Second Pledging Conference for the World Disarmament Campaign held in New York on 24 October, 1984. Following his election to the Presidency, Ambassador Butler said that the World Disarmament Campaign worked well in the first year of its operation and that it was vital that it continued to attract considerable support. At this Conference, a further \$US209 192 was secured in pledges from fourteen delegations. The Australian contribution was A\$50 000, the same amount pledged in 1983. Of this, A\$20 000 was allocated to the United Nations Institute for Disarmament Research (UNIDIR).<sup>19</sup>

9.36 Concepts of Security Study. Australia has secured membership of a UN study group on the concepts of security. This group has been established to carry out a comprehensive study of concepts of security, including security policies that emphasise cooperation efforts and mutual understanding between states.

9.37 The International Year of Peace (IYP). In November 1982, under Resolution 37/16, the United Nations' General Assembly proclaimed 1986, its fortieth anniversary, as the International Year of Peace (IYP). Member States were asked to mark IYP with appropriate commemorative programs. The Australian Government has allocated \$3 million to IYP activities. The January 1986 issue of the Australian Foreign Affairs Record listed existing and planned IYP projects as including:

- research by the Commonwealth Scientific and Industrial Research Organisation (CSIRO) into the effects in the southern hemisphere of the nuclear winter hypothesis;
- a grant to the Australia Council to fund involvement in IYP by visual and performing artists;



- a documentary film on disarmament to be produced by Film Australia for the Department of Foreign Affairs;
- a conference assistance fund to help meet the cost of bringing speakers to academic conferences in Australia on disarmament and arms control;
- a television documentary by CSIRO on its role in helping countries in Asia and the Pacific;
- a symposium on the seismic verification of a comprehensive nuclear test ban treaty to be run jointly by the Department of Foreign Affairs, the Peace Research Centre of the Australian National University and the Bureau of Mineral Resources;
- support for a Human Rights Commission seminar on the right to peaceful protest;
- printing of an Australian IYP stamp;
- minting of an Australian peace dollar coin in mid 1986, incorporating the IYP symbol;
- a colour videotape to focus attention on the IYP and to make participation possible in outlying areas has been prepared by Television Australia. Its purpose is to encourage the formation of IYP community groups at regional and local community levels;
- a peace information kit is being prepared for state and regional groups, schools, universities, libraries, local government and others;
- an IYP videotape for wide distribution in the community. Its aim will be to inform the public on disarmament and arms control processes, their problems and complexities, and Australia's role in the area; and
- presentation of a special IYP peace award.

9.38 The Government has allocated a portion of the money to be spent on IYP activities to foster community involvement in peace issues. Individuals and community organisations have been invited to make submissions and a number of proposals have been received including the establishment of peace resource libraries, tree-planting schemes and peace workshops.

#### Bureaucratic Support

9.39 In moving to strengthen Australia's support for disarmament and arms control, the Government has made a number of bureaucratic and institutional changes and initiatives. These include:

- a. appointment of Australia's first ever Ambassador for Disarmament;
- b. establishment of a peace and disarmament branch, disarmament and arms control branch, and a senior disarmament advisor position in the Department of Foreign Affairs. (See paragraph 9.42);
- c. allocating \$3 million to a nationwide program for the International Year of Peace (IYP) in 1986 and appointing Ms Stella Cornelius, a well-known peace activist and founder of the media Peace Prize to direct the IYP program;
- d. establishment of a National Consultative Committee on Peace and Disarmament, which comprises representatives from non-government organizations and provides advice on community awareness of and involvement in the IYP; and
- e. establishment of a peace studies centre at the Australian National University.

9.40 The Ambassador for Disarmament. The Australian Government's decision to appoint an Ambassador for Disarmament was announced by the Minister for Foreign Affairs, Mr Hayden, during the Evatt Memorial Lecture of 7 July, 1983. The Ambassador's prime responsibility is to represent Australia and implement Government policies at multilateral disarmament forums. The major forum is the Conference on Disarmament although the Ambassador also leads the Australian delegation to the United Nations Disarmament Commission in New York and the First Committee of the United Nations General Assembly in New York.

9.41 The Ambassador has a major responsibility, in conjunction with other relevant officials, to provide the Government with advice on the development of initiatives, policies and approaches to issues in the disarmament and arms control area. Furthermore, he has a watching brief on relevant developments in other arms control and disarmament-related discussions and negotiations, such as the Geneva talks between the superpowers, the Mutual and Balanced Force Reduction Talks (MBFR), preparatory meetings for treaty review conferences and the Conference on Disarmament in Europe (CDE).

9.42 The Department of Foreign Affairs. Executive responsibility for disarmament and arms control rests primarily with the Minister for Foreign Affairs and his Department. Within the Department, the development and implementation of advice and policy with respect to arms control is carried out by three specialist branches located in the Executive, Policy Planning, Defence and Nuclear Division. These are:

- a. **Disarmament and Arms Control Branch.** This Branch was established in August 1983 together with the position of the Special Disarmament Adviser. The principal functions of the Branch relate to Australia's present diplomatic and negotiating activities in the United Nations and other multilateral forums such as the South Pacific Forum and Vienna talks on Mutual and Balanced Force Reductions (MBFR). The Branch also oversees and contributes to specialist study groups such as the concepts of security working group and the assessment of chemical weapons usage. In these latter roles it often uses experts from other government departments.
- b. **Nuclear Policy Branch.** The functions of the Nuclear Policy Branch includes responsibilities for nuclear non-proliferation and safeguards policy, coordination with relevant international organisations and other countries on these questions, and the negotiation of international treaties and arrangements concerning the peaceful uses of nuclear energy. In some of these matters, the responsibilities overlap with the Department of Trade and the Department of Resources and Energy.
- c. **Peace and Disarmament Branch.** This Branch is responsible for overseeing Australia's IYP activities and initiatives as well as continued liaison with peace groups and other non-government organisations.

9.43 In evidence to the Committee, Departmental officials indicated that along with the structural changes to the Department, the number of officers dealing with disarmament and arms control had also been increased:

From two Second Division officers [in 1983], there are three; from seven Third Division diplomatic officers there are now 12; secretarial and administrative staff have gone from four to five. In Geneva at the Conference on Disarmament we have a full time ambassador for disarmament, who therefore not only heads our delegation in the Conference on Disarmament but also heads our delegation, for instance in the First Committee of

the United Nations' General Assembly which addresses disarmament issues, and in the UN Disarmament Commission. The two diplomatic officers in Geneva are now full time on disarmament work and when related to the CD, they also attend meetings and conferences elsewhere and a new position has been created to provide secretarial support to that not very large delegation. That delegation is, of course, supplemented on occasion by people from Australia, particularly a chemical weapons expert from the Department of Defence and a seismic expert from the Bureau of Mineral Resources.<sup>20</sup>

In July 1986, staffing of the section consisted of 3 second division officers, 13 diplomatic, clerical and administrative officers and 3 keyboard staff.

9.44 In addition to the overall increase in staff numbers, the background and expertise of the Branches is also being broadened. In this context, the Ambassador for Disarmament informed the Committee that:

... our staff in Foreign Affairs ... now ... include people who, as well as being skilled foreign policy analysts, diplomats if you like, also possess other skills relevant to this field. We have a PhD in physics in the area; we have some lawyers and political scientists ... At the same time we are able whenever required to call on expertise from other places. We do in particular in the chemical weapons field from the Materials Research Laboratories ... [and] our delegation in Geneva includes ... an expert in seismological matters and two experts in chemical matters.<sup>21</sup>

#### Overview

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

- a. **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;
- b. **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;

- c. 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
- d. 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.

9.46 These underlying themes can and have given rise to a number of questions or potential criticisms of Australia's approach. Some of these issues are taken up in the following chapter.

CHAPTER 9  
ENDNOTES

1. Department of Foreign Affairs, Submission, p.85.
2. Department of Foreign Affairs, Submission, p.85.
3. Department of Foreign Affairs, Submission, p.89.
4. Review of Australia's Defence Capabilities: Report to the Minister for Defence by Mr Paul Dibb, March 1986, Australian Government Publishing Service, Canberra 1986, p.1.
5. Department of Foreign Affairs, Submission, pp.86-7
6. Quoted in Department of Foreign Affairs, Submission, p.86.
7. Uranium, the Joint Facilities, Disarmament and Peace, Australian Government Publishing Service, Canberra, 1984, p.11.
8. Uranium, the Joint Facilities, Disarmament and Peace, p.12.
9. Department of Foreign Affairs, Submission, pp.88-9.
10. Department of Foreign Affairs, Submission, p.810.
11. 'Australian explanation of vote on the "freeze" resolutions', delivered by Ambassador Richard Butler on 20 November 1984.
12. Report of the Australian Delegation to the 1985 Session of the Conference on Disarmament, 5 February-30 August 1985, p.21.
13. See SIPRI Yearbook 1986, p.325.
14. Quoted in Department of Foreign Affairs, Submission, p.818.
15. Department of Defence, Evidence, 23 May 1984, pp.71-2.
16. Department of Foreign Affairs, Submission, p.823.
17. See Chalmers Hardenbergh, 'The other negotiations', Bulletin of the Atomic Scientists, January 1986, pp.43-4.
18. Department of Foreign Affairs, Australia and Disarmament: Steps in the right direction, Canberra, Australian Government Publishing Service, 1986, p.11.
19. Department of Foreign Affairs, Disarmament Newsletter, 12 December 1984, p.14.
20. Department of Foreign Affairs, Evidence, 23 May 1984, p.33.
21. Mr Richard Butler, Evidence, 7 June 1984, p.109.

## CHAPTER 10

CRITICISMS OF AUSTRALIA'S ROLE IN  
DISARMAMENT AND ARMS CONTROL

10.1 The Australian Government's determination to play a more active role in arms control and disarmament reflects a broader concern within the Australian community at large over the continued build-up of nuclear weapons throughout the world and the potential threat posed by nuclear war. This concern is illustrated by the activities of the peace movement but is also reflected in a number of other ways. Palm Sunday marches have continued to attract up to several hundred thousand participants. Each year has witnessed more meetings, more conferences and more workshops on nuclear issues. Media exposure of various nuclear-related issues and problems is increasing. Nuclear matters are gaining increased prominence on the political agenda; all major political parties have recently developed or refined their policies on the related issues of deterrence and disarmament. In December 1984, Senator Vallentine from Western Australia became the first Australian parliamentarian to be elected on the single issue of nuclear disarmament.

10.2 Community interest in the nuclear question was also shown by the large number of submissions to this inquiry. A total of 97 submissions were received from individuals and associations. Generally, 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.

10.3 The submissions were not entirely uncritical of Australia's present approach towards disarmament and arms control. There were four major areas of criticism covering:

- a. the efficacy of the current system of deterrence and Australia's role in that system;
- b. whether Australia should place more emphasis on achieving disarmament rather than arms control;
- c. whether Australia should pursue a more independent stand on disarmament and arms control; and
- d. whether the Australian community is sufficiently informed or aware of nuclear issues generally and of their specific consequences for Australia.

This Chapter examines each of these areas in turn, taking into account conclusions and observations that have been made in earlier chapters. Chapters 15 to 18 discuss in detail four specific issues that were raised in a large number of the submissions and have been the source of considerable debate in Australia. These are the Joint U.S.-Australian facilities, the South Pacific Nuclear Free Zone, peace education and research in Australia, and the mining and export of Australian uranium.

## Australia and Deterrence

10.4 A major issue raised before the Committee concerned the efficacy of the current system of deterrence and Australia's contributions to that system. As noted in the previous chapter, while the Australian Government has as its ultimate objective the complete elimination of all nuclear weapons, it sees deterrence as the 'only viable existing option' for preventing military conflict between the superpowers in the short term. As Mr Hayden stated in July 1984:

We are in the situation that, although we want total nuclear disarmament, we have to have some system in place which has the most chance of preventing nuclear war in the interim time it takes for the implementation of effective arms control leading to total nuclear disarmament. While keeping in sight the ultimate goal of total nuclear disarmament, we have to use the most effective option open to us at the moment. This is a paradox with which we have to live; however much we hate the bomb, we have to live with it for a long time yet. The concept of deterrence is the only moral choice because for all its difficulties it is the only one which is actually available to us and which at the same time best contributes to peace in the real world which we face.<sup>1</sup>

10.5 While the Australian Government clearly supports the concept of deterrence there are some differences of opinion over what form it should take. In the same publication the Minister for Foreign Affairs, Mr Hayden, expressed his support for a concept of deterrence in which 'each side must be quite certain that if it attacks first, it will surely be destroyed by a retaliation from the other side'. The same document stated that this concept is being subjected to a number of challenges.

Recent developments in nuclear technology, particularly the attainment of greater accuracy in nuclear weapons and of more sophisticated and allegedly more survivable command, communications and intelligence capabilities have led people to the view that it is preferable for the superpowers to prepare to fight a nuclear war that would be

limited instead of accepting the risk of mutual destruction if deterrence were to break down. Moral support has been given to the nuclear war fighting and limited war doctrines on the grounds that it is more moral to attack military targets than to base everything on a mutual threat of massive destruction.<sup>2</sup>

10.6 The document observed that the basic problem with any theory of deterrence based on the possibility of fighting a limited nuclear war is that it will not work.

As the Palme Report correctly states, there can be no victors in a nuclear war. Nuclear war cannot be limited. This is no longer just the position of theoreticians. Nuclear war fighting has been formally rejected by the leadership of the Soviet Union and by the leadership of the United States. Both sides now acknowledge that nuclear war cannot be won. To prepare to fight a limited nuclear war, or to prepare to fight and win a war, is in fact to make nuclear war more thinkable and therefore more possible. This Government is therefore urging both the Soviet Union and the United States to give effect to their rejection of the idea of nuclear war fighting in the way they go about deploying their weapons and in the new technologies they are developing.

Mr Hayden further argued that an even more dangerous approach:

... is that of seeking to attain nuclear superiority. It is now surely evident from the history of the last 20 years that neither side can gain a decisive lead over the other. Arguments that one side should try to outbid, outbuild or outdevelop the other and therefore force it to the negotiating table have proved to be false. Neither the Soviet Union nor the United States will get so far behind in the arms race that it will be forced to reach agreements that it does not wish to reach.<sup>3</sup>

10.7 Similar arguments were submitted to the Committee by the Department of Foreign Affairs which stated that:

The avoidance of war between the United States and the Soviet Union is the more essential in the nuclear age, since there can be no assurance that nuclear war between them could be limited. Far

from giving credence to any notions of the achievement of 'superiority' or of a disarming 'first strike', the Government sees as fundamental the preservation of stability and balance in the strategic relations between the two 'superpowers'.<sup>4</sup>

The Department continued that at present:

The Government does not believe that nuclear war is imminent. On the contrary, it is the Government's assessment that the likelihood of global nuclear war occurring is remote. In this respect the Government attaches particular importance to the continuing durability of nuclear deterrence. In the absence of a better system of restraint on nuclear weapons the Government believes that deterrence is the only practical option available to avoid serious international nuclear instability and overt nuclear conflict. At the same time the Government recognises that nuclear deterrence is a far from perfect system of nuclear restraint. The threat of nuclear war remains, including the threat of accidental war or war through miscalculation. It will only be removed when the nuclear arsenals of the nuclear states are reduced and eventually eliminated.<sup>5</sup>

10.8 The Department argued that since Australia is part of the Western Alliance it has a responsibility to support and contribute to the current system of deterrence. Australia's contributions include the continuing defence relationship with the United States, in particular membership of the ANZUS Treaty; provision of service facilities at Cockburn Sound for U.S. Navy Ships engaged in patrolling the Indian Ocean; staging and transit facilities at Darwin for U.S. B52 bombers; increased regional presence in support of U.S. operations - largely naval and air surveillance; the provision of a number of scientific and data collection installations which have some defence or arms control relevance; and the provision of peacekeeping forces.

10.9 While the Minister for Foreign Affairs appears to emphasise 'basic' deterrence based on mutual assured destruction, witnesses from the Department of Defence made reference to 'extended deterrence' including counterforce or nuclear war-fighting capabilities. A Departmental officer suggested to the Committee that 'we now live in a time when deterrence has to be very much different in form from the way it was conceived in the early post-war period'. He argued that once the Soviet Union achieved a rough strategic parity with the United States it was no longer possible for America to use its strategic nuclear forces to deter a Soviet conventional, or limited, nuclear attack in Europe. In order to satisfy this objective the United States had to develop its own limited nuclear war-fighting capacity.

... if the U.S. did not give the appearance of being in a position to fight a limited nuclear war

then its threat of nuclear retaliation in the event of, say, a Soviet invasion of Western Europe might appear as bluff ... Without the capabilities in the United States to wage a limited nuclear war, the Soviet Union might calculate that the U.S. was not prepared to risk using its strategic forces ... Perhaps I could summarise it this way: Effective deterrence depends on the ability to inflict nuclear retaliation; that is, to raise the costs of aggression to such a high level that neither side will initiate attack on the other's vital interests. The cornerstone of U.S. defence policy, I believe, remains deterrence of nuclear war. However, in our current global circumstances, deterrence of nuclear war requires, if it is to be credible, that the U.S. must have the capabilities to wage such a war. It is an apparent paradox but one that I believe is rational when subjected to close scrutiny.<sup>6</sup>

It was acknowledged that the prevention of nuclear war 'is fundamental to Australia's defence interests', and that a major concern is to minimise the risks of superpower conflict since 'there are widely-held doubts that the superpowers would be able to prevent non-nuclear military hostilities between them ... from escalating to a nuclear exchange'. The way to achieve this however, was thought to be through a system of extended deterrence - incorporating counterforce or countervailing capabilities - rather than mutual assured destruction.

10.10 A similar view was expressed by the Prime Minister, Mr Hawke, in a speech to Parliament on 6 June 1984. Mr Hawke stated that the Government's principal objective was to maintain, and if possible enhance, a stable deterrent relationship between the United States and the Soviet Union, where deterrence 'can be pursued through any means of convincing a potential aggressor that he would face unacceptable costs'. Mr Hawke added that the Government is also committed:

... to working for measures to stabilise the strategic balance, on which stable deterrence depends, and to curb arms competition. Through equitable and verifiable measures for arms control and reductions, we seek to limit qualitative improvements in arms and to reduce the forces involved.<sup>7</sup>

10.11 Mr Hawke also argued that Australia has a responsibility to contribute directly to the maintenance of global deterrence through the provision of the joint facilities and other measures even though this may increase the likelihood of Australia being attacked in the event of a nuclear war.

Australians cannot claim the full protection of that deterrence without being willing to make some contribution to its effectiveness. It is important to support stability in the strategic relationship between the superpowers and our cooperation in the joint facilities at North West Cape, Pine Gap and Nurrungar does this.

As to the specific risk of nuclear attack on these facilities in the event of nuclear war, it is not possible to be categorical; we cannot enter the minds of possibly hostile foreign military planners. The Government believes that hosting the facilities does bring with it some degree of added risk of nuclear attack. But the maintenance of effective deterrence including through early warning has as its purpose the avoidance of war between the nuclear powers ... the removal of the joint facilities would hinder United States efforts to maintain effective and stable deterrence and would damage the capacity of the United States for monitoring and verification, so striking a very serious blow at the prospect of arms control agreements between the superpowers.<sup>8</sup>

10.12 The Government took the view that the abolition of the joint facilities from Australian territory would deliver a 'major blow' to both deterrence and the overall cause of arms control. Removal of the joint facilities could undermine deterrence by reducing the ability of the United States to detect incoming Soviet ICBMs. Without such early warning, the United States:

... would be much less confident that it would not be the object of a surprise attack, and would conclude that it was at a strategic disadvantage. This could lead to an instability and uncertainty which in a situation of crisis might make the United States conclude that, based on its inability to be sure of adequate and timely information, it had to attack first in order to forestall a potential disarming strike against it. By refusing to cooperate in this important area, we would be adding to instability and worsening the prospects for avoidance of nuclear war.<sup>9</sup>

10.13 The issue of whether and how deterrence should be practised formed a central concern of many of the submissions to this inquiry. A number of submissions noted that while the basic objective of United States' strategic nuclear policy is to deter the Soviet Union from actions that would be detrimental to United States and Western interests, in particular Soviet use or threatened use of nuclear weapons, the way in which this basic objective is achieved had changed over time. Some submissions

considered that the development of new strategic doctrines by both sides, together with the continued deployment of new weapons and technologies, were increasing the prospect of nuclear conflict. Through the provision of the joint United States-Australian defence facilities and other forms of support for current US policies, Australia was said to be directly contributing to this growing prospect.

10.14 The National Coordinating Committee of Scientists Against Nuclear Arms argued for example that the theory of nuclear deterrence is both 'self contradictory' and 'directly responsible for the continued threat of catastrophe' since it foments the arms race and increases mutual insecurity between the superpowers. SANA argued that Australia 'should accept the futility of maintaining the deterrence and withdraw from any part in the nuclear arms race'. Unfortunately, in its view, Australia's continuing support for, and links with, the United States 'effectively prohibits any real questioning of USA strategic policies' or its implications for world peace.<sup>10</sup>

10.15 A similar position was taken by the Clergy for Peace who argued that:

Deterrence involves a morally unacceptable intention. Namely, the readiness to kill millions of people living around military installations in the Soviet Union who have very little control over their Government's policies. That is what will be done by the submarines like the Trident, which receives communications from the Base at N.W. Cape. It is no mark of civilisation to acquiesce in this intention.<sup>11</sup>

They further claimed that the joint U.S.-Australian facilities now contribute to war-fighting capabilities which go far beyond the notion of deterrence based on mutual assured destruction. They suggested that the Government seriously analyse whether changes in weaponry and in U.S. policy suggest that these bases now form more of an offensive than a defensive system, and that the Government facilitate a public discussion of this issue prior to December 1985, that being the earliest date by which Australia can signal its intent to terminate the agreement governing the Joint Space Research Facility at Pine Gap.

10.16 Similar arguments were made by the Melbourne branch of People for Nuclear Disarmament, which submitted that:

... it is now widely acknowledged that many of [the Joint]... installations are directly linked to current preparations for war. They have been aptly described as forming part of the brain, eyes and ears of America's nuclear weapons systems, thereby making Australia a highly probable target in the event of a nuclear exchange.<sup>12</sup>

PND further argued that the view that the joint facilities contribute to stable deterrence is no longer true. It asserted that SLBM systems controlled through North West Cape now have a hard target counterforce capability which can be used to destroy opposing weapons systems in a first-strike. It claimed that the joint facilities are:

... used for the identification and precise location of targets necessary for the planning of counterforce attacks as well as for the continuous real-time monitoring of Soviet missile silos and bomber bases, command and control centres, etc., necessary for the slow-motion counterforce exchanges envisaged in current U.S. strategic nuclear war-fighting doctrine. If these capabilities undermine deterrence, then so do the intelligence systems on which they necessarily depend.<sup>13</sup>

While acknowledging that the installations at Pine Gap and Nurrungar help verify current arms control agreements, PND argued that this:

... has to be weighed against the fact that the same installations (via their target acquisition function) contribute to dangerous war-fighting doctrines (and to such operations as the U.S. bombing of Cambodia). The doubtful gain in relation to arms control is amply offset by the certain cost to Australian security and international instability.<sup>14</sup>

10.17 A more general critique of deterrence was offered by Dr J. Falk of the University of Wollongong. In a submission to the Committee,<sup>15</sup> Falk argued that deterrence is based on a series of assumptions which are open to question and which serve to encourage certain approaches that may preclude serious arms control negotiations or a search for political solutions to the nuclear problem. These assumptions include:

- a. an asymmetric deterrer-aggressor relationship between the superpowers, where, from a Western perspective, the United States is presumed to always be the deterrer and the Soviet Union the aggressor. The effect of this assumption is 'to reduce the apparent credibility of peace initiatives and the value of seeking to mediate between the superpowers';
- b. the fact that nations are often treated as single and indivisible entities. The existence of competing interests often with opposing views on how deterrence should be carried out is often ignored;

c. an over-emphasis on rationality in national and international behaviour. Nations are often assumed to be rational actors obeying a particular assumed logic. According to Falk, this:

... simultaneously: (a) obscures the extent to which national responses are unpredictable; (b) exaggerates the capability of nations to control nuclear war; (c) obscures the mixed motives and competing interests which may mould what eventually emerges as national policy; and (d) obscures the degree to which it is valuable to question whether alternative policies to those currently officially pursued are viable or necessary; and

d. oversimplification of national interactions which can serve to play down the ability of nations to act independently of the superpowers and the effectiveness of such action.

10.18 Falk considered that assumptions of this sort act to constrain thinking in Australia about arms control. In particular, they were said to provide:

- a rationale for the rapid and continuous escalation in the arms race towards counterforce;
- a characterisation of the Soviet Union as an intransigent aggressor as opposed to we, in the West, who are characterised as peace loving;
- a support for a view of the world as inevitably divided into two blocs;
- a sense of certainty which acts to mask the high levels of uncertainty about the course and effects of a future nuclear war (created by the limits of our ability to analyse complex systems, and especially those involving interactions between humans);
- a perspective in which an impersonal logic transcends the need for political discussion; and
- a consequent feeling of powerlessness for those outside the government and its decision-making agencies.

In Falk's view, such analytical constraints have a pervasive influence and help 'condition the rhetoric and logic of both proponents and opponents of current developments in the arms race'.

10.19 The view that deterrence and disarmament are mutually incompatible was advanced in a number of other submissions to the inquiry. This belief was based on the view that deterrence focuses on the weapons and the fear they inspire. As long as each side maintains an ability to destroy the society of the other side after suffering a first strike then deterrence is preserved. But neither superpower can be completely certain that its retaliatory capability is not being undermined, so it continues to investigate and develop means of improving the survivability of its forces and the certainty and effectiveness of its response to a range of provocations. According to this view, this kind of logic equates 'safety' with the number of weapons that are deployed. In the words of a witness for the NSW Branch of People for Nuclear Disarmament:

... in order for deterrence to be stable, each side is threatening the other with devastation in the event that nuclear arms are used against it. As a result of those threats being made, you minimise the risk that nuclear weapons will ever be used. However, if the threat increases, then the consequences become even worse and therefore you minimise the risk that nuclear war will actually occur ... as the threat increases, the risk that you will actually have nuclear war, in fact, decreases.<sup>16</sup>

Deterrence is thus said to facilitate an ever-increasing arms race, and reductions in armaments are not favoured since that might reduce the threat and so increase the danger of nuclear war.

10.20 Deterrence was also said to be incompatible with disarmament since it establishes a level of armaments beneath which the size of the superpower arsenals cannot be reduced. This level is the number of weapons that are needed to destroy the adversary in a retaliatory strike and is often referred to as a 'minimum deterrent'.

10.21 While the critics of deterrence were ready to point out its weaknesses and dangers, they were less certain about whether and how it should be replaced. As described shortly, most submissions emphasised the importance of reducing and ultimately eliminating nuclear weapons. They also accepted that nuclear disarmament would take considerable time to implement and that during this time there was a need to maintain strategic stability through a range of crisis control and other measures. This in fact does not necessarily amount to a dismissal of deterrence as a concept, rather an attempt, initially at least, to establish a stable deterrent relationship at much lower force levels than the superpowers currently regard as necessary.

10.22 Others accepted the need for some form of deterrence as the only means of minimising the risk of superpower conflict in the short term, but argued that we need to review many of the assumptions which underlie deterrence theory if we are to make any progress towards achieving arms reductions, much less total nuclear disarmament.



## Discussion and Committee Views

10.23 As long as nuclear weapons continue to exist, there will always be a risk of nuclear war. Deterrence is the current way of minimising this risk. While all parties agree that nuclear war of any kind would have disastrous consequences, opinion is divided over whether deterrence, especially the way it is currently practised, is the best way of preventing nuclear war.

10.24 On the one hand there are those who argue that, at present, deterrence is the only viable means of avoiding serious international instability and overt nuclear conflict. A 'balanced' and 'stable' deterrent relationship needs to be preserved between the United States and the Soviet Union to maintain peace and to provide a climate to press for 'equitable' and 'verifiable' limitations or reductions in arms. Australia is said to have a responsibility to contribute to stable deterrence especially through the maintenance of the joint defence facilities, even though this may increase the risk of attack by nuclear weapons.

10.25 On the other hand, there are those who claim that deterrence and disarmament are mutually incompatible since deterrence, they argue, contributes to an ever-increasing arms race. They further suggest that deterrence is not a stable system of superpower management and that it will ultimately lead to conflict between the United States and the Soviet Union. They further argue that the doctrine of deterrence has itself been superseded, or at least substantially reinterpreted, as a result of the adoption of strategic doctrines that emphasise nuclear war-fighting and counterforce targeting, and that these developments rate for more instability in relations between the superpowers. They argue that Australia directly contributes to this instability through the provision of the joint facilities and other forms of support, and that a reassessment of our current global responsibilities is required, beginning with the deterrent relationship between the United States and the Soviet Union and Australia's role in contributing to the relationship.

10.26 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. The principal questions then are first, whether the continuation of deterrence in the short term can provide the basis for eventual nuclear disarmament and secondly, whether it can prevent military conflict between the superpowers before this objective is achieved?

10.27 The Australian Government and supporters of its policies think it can. While recognising that deterrence has certain problems and dangers, they consider that it is the only effective option presently available for keeping the peace. The

problem is that there appears to be variations of emphasis between government departments over how deterrence is and should be carried out. The Minister for Foreign Affairs and his Department seem to emphasise a system of deterrence based on assured destruction in which each superpower would retain invulnerable strategic nuclear forces capable of destroying the other side in the event that it is attacked with nuclear weapons. They are opposed to the introduction of new technologies which could undermine assured destruction or which could allow either superpower 'to fight a limited nuclear war or to prepare to fight and win a war!'

10.28 However, the Department is also in favour of preserving a 'delicate perhaps even precarious, stability' in the strategic relationship, which would appear to be at odds with its support for deterrence through mutual assured destruction. This latter position can allow for fairly wide discrepancies in the strategic balance without necessarily upsetting it. A form of extended deterrence on the other hand requires a more exact matching of capabilities (or counter-capabilities) and is concerned by specified differences or 'windows of vulnerability'. Departmental witnesses appearing before the Committee were unable to comment in detail on these and other potential problems associated with deterrence stating that 'deterrence doctrine is a matter for which the Department of Defence has the prime responsibility'.<sup>17</sup>

10.29 The Department of Defence appears to favour a form of deterrence which is in conflict with that publicly espoused by the Department of Foreign Affairs. Evidence presented to the Committee suggests that Defence supports a system of deterrence which is close to the present United States' 'countervailing theory' of deterrence which includes counterforce capabilities - the ability to destroy military targets - and doctrines which at least 'give the appearance of being able to fight a limited war'. The Defence Department does not dismiss the importance of assured destruction but argues that in order for the United States to effectively deter the Soviet Union, it must also demonstrate a willingness to acquire the sorts of capabilities that might be useful in a nuclear conflict and be prepared to use them.<sup>18</sup> It also accepts the American position that the West needs to think about and plan against possible failures of deterrence and develop sufficient flexibility in its forces to 'terminate the conflict on terms favourable to the forces of freedom and re-establish deterrence at the lowest possible level of violence'.<sup>19</sup>

10.30 The existence of different and potentially conflicting interpretations of the meaning of deterrence and how it should be practised raises a number of concerns. First, it would appear that much of the Government's public justification for our continued support of deterrence is based on 'mutual assured destruction'. As described in Chapter 4, the strategic doctrines and forces postures of the two superpowers have moved a long way from those proscribed by MAD. While MAD continues to operate as a fact of life in the nuclear world, it is only a part of the current policy of deterrence. The other policy components of

deterrence have also to be taken into account when assessing the continued viability and stability of the current system of deterrence. Second, there is concern that at least some of Australia's policy advisers or policy-makers may not be fully aware of the implications of the latest developments in the strategic nuclear doctrines of the two superpowers. Third, while Australia's justification for its continuing contribution to maintaining stable deterrence is couched largely in terms of basic deterrence, the Department of Defence - which is responsible for implementing Australia's policy - appears to favour an approach which is, in part at least, in conflict with this policy.

10.31 The opponents of deterrence argue that while it may be fine as an ideal, in practice it facilitates an ever-increasing arms race - due in part to the nature of the superpower competition and the continuing momentum of technological change - and it automatically evolves into a form that is inherently unstable. Some of the arguments in favour of this proposition appear to be accepted by the Government, as evidenced by its stated need for a wide range of arms control measures. The major problem is that the supporters of this view have not been able to suggest a practical or realistic alternative to preventing military conflict between the superpowers in the immediate future. Most of the proposals suggested amount to nuclear deterrence in one form or another although most are very different from deterrence as currently practised. The basic emphasis of these proposals is on means of checking and reversing the arms race which may in turn require a reassessment of some of the assumptions that underly deterrence.

10.32 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 is concerned to find a degree of confusion and conflict surrounding the meaning of the term and how deterrence is and should be carried out. There is a suspicion that deterrence is being used as a 'catch-all' to justify existing policies and actions without sufficient analysis or understanding of what is meant by the term, or of existing doctrines and policies that are based on deterrence. The Committee considers that Australia should have a single and consistent approach towards deterrence and how it should be practised. It 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.

10.33 The Committee considers 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. As described in Chapter 4 however, the Committee also has some reservations about the continued stability of the present system based on the 'countervailing' 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 threaten a successful first strike against either superpower.

#### Disarmament or Arms Control?

10.34 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. For the ensuing discussion it may be helpful to keep in mind the following technical definitions of nuclear disarmament and arms control:<sup>20</sup>

- a. nuclear disarmament is concerned with reducing or completely eliminating nuclear weapons and the political and strategic conditions that would facilitate their removal;
- 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. Arms control involves limitations on the number or types of armaments or armed forces, on their deployment or disposition, or on the use of particular types of armaments. It also encompasses measures designed to reduce the danger of accidental war or to reduce concern about a surprise attack.

Under this definition, arms control measures can facilitate reductions in certain armaments but its scope is far more limited than disarmament. Similarly, arms control can lead towards disarmament but it tends to do this in an *ad hoc* and largely unplanned way.

10.35 Bearing these technical definitions in mind, a second general criticism contained in submissions to the inquiry was that Australia's present policies on disarmament and arms control do not give sufficient emphasis to complete or total disarmament. The South Australian Disarmament Committee of the United Nations Association of Australia, for example, noted that Australia had played an important role in preparing the Final Document of the United Nations Special Session on Disarmament in 1978, which, *inter alia*, called for the abolition of nuclear weapons and all weapons of mass destruction and for a reduction in conventional weapons and complete disarmament. The Disarmament Committee commended the Australian Government for its recent arms control initiatives, but argued that it should do more to satisfy the basic objectives of the Final Document, which had again been ratified by all nations represented at the United Nations Second Special Session on Disarmament in New York in 1982. The Committee submitted that:

The supreme crisis we face gives all of us, and particularly the Australian Government and Parliament, the responsibility to come forward with new initiatives and a new boldness to secure the future of the Earth.

10.36 The proponents of a greater emphasis on disarmament did not suggest that arms control, and Australia's efforts to achieve arms control, were unimportant simply that it was not sufficient to eliminate the risk of nuclear war. In their view it was also necessary to address the basic causes and issues of the conflict, including the political relations between the superpowers and the need to find alternative ways of ensuring national and international security in the nuclear age - as well as its symptoms. They generally recognised that the problems confronting disarmament were greater than those facing arms control, but they considered that the scale of the nuclear peril and the limited success of past arms control efforts justified such a change. Among the proposals suggested to the Committee were that:

the Australian Government should sponsor research into alternative international and national security concepts and political changes that would eliminate the prospect of nuclear war and facilitate disarmament;

the Australian Government, in conjunction with other Pacific nations, sponsor a World Government Conference to examine alternative means of ensuring national security in the nuclear age; 23

the Australian Government should reorient its foreign policy to promote values such as demilitarization and deactivation, and give greater emphasis to collective rather than national security concepts;

the Australian Government should provide an example to the rest of the world by either unilaterally disarming or moving to a defence posture of armed neutrality or one based on non-violent resistance. The Social Responsibility Committee of the United Church in Australia (Queensland Synod) argued, for example, that:

Australia could make a far more effective contribution to international disarmament by embarking on a systematic and phased disarmament posture, the eventual end of which would be an Australia defended substantially by civilian-based nonviolent means, perhaps supplemented by a small paramilitary force;

10.37 As described shortly, the Committee does not support many of these proposals. In particular, any suggestion that Australia should unilaterally disarm, the concept of unilateral disarmament was not supported by the Government or by a number of others who appeared before the Committee. The Department of Defence argued for example that:

the option of unilateral disarmament is not one which it is considered would promote our national security interests. As the Minister for Defence said in his statement to Parliament on 3 November last year:

The fundamental concern of defence policy from which all other defence efforts must derive, is the security of the nation, its independence and its interests, from external armed attack or threat of attack.

The current and foreseeable global environment is not seen to be one in which unilateral disarmament by Australia would advance our national security interests.

10.38 A similar view was expressed by the Returned Services League of Australia which commented that:

balance of armaments has been the basis of a continuing peaceful arrangement between the superpowers ... we would be particularly concerned

if that balance were upset to the disadvantage of the ... Western Alliance ... the R.S.L. certainly would be in favour of a reduction in arms capability but at the same time it would warn against any pressure to bring unilateral disarmament to the West.<sup>27</sup>

The RSL was not against disarmament however. Its submission to the inquiry stated that:

Disarmament has been and always will be an estimable aim. In itself, however, it will not resolve the essential differences between nations and peoples, groups and counter groups. It will not, in itself, prevent the use of force in resolving what would otherwise be insoluble differences. It will, however, reduce the scale of force employed and this must be regarded as an attractive aim because of the more beneficial uses for which resources could be expended.<sup>28</sup>

10.39 Many in the peace movement who were otherwise quite critical of Australia's current arms control policies were not in favour of unilateral disarmament. A spokesman for People for Nuclear Disarmament (Victoria) informed the Committee that PND and most disarmament organisations 'are for multilateral disarmament but see unilateral disarmament initiatives as a constructive way of bringing those about'.<sup>29</sup> There was also considerable support for the concept of disarmament initiatives from the peace movement. The Australia Quaker Peace Committee suggested that Australia should encourage the nuclear powers to take unilateral initiatives which have the following characteristics:

- a. they are genuine disarmament steps, but do not seriously endanger national security;
- b. they are unilateral actions taken without negotiations in the hope and expectation that the other side will respond by making reciprocal actions;
- c. they allow enough time (at least six months) for the other side to respond before making a decision about whether or not they have been effective.<sup>30</sup>

The Quaker Peace Committee argued that negotiated arms control treaties 'take longer to achieve than it does to develop a new generation of weapons', and that unilateral disarmament initiatives 'offer hope of expediting the process'. It considered that initiatives that could be taken by either

superpower included a nuclear freeze, a moratorium on nuclear testing, an anti-satellite weapons ban, anti-submarine warfare limits, a ban on the flight testing of new missiles, on-site inspections and no-first-use or no-first-strike declarations.

10.40 A similar position was taken by Action for World Development (AWD) which was established in 1970 by the joint action of the Catholic Bishops Conference and the Australian Council of Churches. AWD argued that:

... in the present stalemate of negotiations, we believe that unilateral actions are necessary in order to build trust without which negotiations cannot be resumed. We would like to submit that the over-kill situation in nuclear arms supplies is such that carefully chosen unilateral actions can be effective without any threat to security.<sup>31</sup>

10.41 Of the initiatives raised, the nuclear freeze figured most prominently as a potential means of halting the arms race and providing a political climate that could be conducive to major arms reductions. The most detailed suggestion for a freeze proposal was contained in the combined submission from the Medical Association for Prevention of War (Australia), Scientists Against Nuclear Arms (Australia), the United Nations Association of Australia (NSW Branch) and the International Peace and Security Committee of the Law Council of Australia.<sup>32</sup> The submission argued that the United States and the Soviet Union should announce a moratorium on all further testing, production and deployment of nuclear weapons and nuclear delivery vehicles. The 'freeze' should be introduced in two stages:

- a. an immediate freeze on those aspects of the nuclear arms race which both countries are already monitoring and verifying with high confidence, i.e., the testing of all nuclear warheads and the flight testing and deployment of all ballistic missiles;
- b. negotiations should then commence towards a total freeze of testing, production and deployment of all nuclear weapons and delivery systems. The negotiations would cover supplementary verification measures such as on-site inspections and IAEA monitoring.

10.42 The submission stated that the first stage of the freeze 'can be verified with high confidence by existing National Technical Means'. The second stage would need to include negotiations on adequate means of verification. Agreement on this would in turn 'require time and a high degree

of trust, both of which are absent while the arms race is continuing'. The submission argued, however, that the required time and trust would be bought by phase one of the freeze. Three major reasons were cited for the introduction of a freeze, namely: (1) the approximate parity in superpower nuclear arsenals; (2) the need to freeze before the introduction of unverifiable weapons such as the cruise missile; and (3) the increasing danger of lateral proliferation.

10.43 On the question of verification, it was suggested that once achieved, 'the comprehensive nature of a total freeze on all testing, production and deployment would facilitate verification'. While it was accepted that production of some weapons systems or components could still occur under a freeze, it was considered that it would not be possible to test these systems. In evidence before the Committee, a witness for the Medical Association for Prevention of War further stated that once a freeze had been achieved, a small amount of cheating does not matter one way or other.

The only thing that can unbalance that deterrent situation is something like a first-strike capability and you cannot achieve that by producing a few weapons. Unless you can test your weapons, you would never be sure enough of having such a capability to use it. So a small amount of cheating really is entirely irrelevant to this issue. Anyway, if either side did indulge in it, the political approbrium that would be heaped on it around the world would presumably be a factor that would prevent them from doing this.

10.44 This view tends to ignore the fact that it is more difficult to verify Soviet compliance with arms control agreements due to the closed nature of its society, or to accurately evaluate its conduct towards arms control generally. The argument also underestimates the political consequences of continued 'cheating' at the margins by either party. While such actions would not undermine the strategic balance it could well have a serious effect on superpower relations and the prospects of reaching further arms control agreements. For such an approach to have the intended effects, there would have to exist a political climate in which neither superpower used allegations of cheating at the margin, whether real or not, to abrogate the substantive provisions of the freeze agreement.

10.45 The submission noted that a nuclear freeze has strong support in the United States and 'several United Nations motions for a freeze have been passed by overwhelming majorities'. Furthermore, it was considered that:

There is a good reason to believe that if the USA proposed a freeze, the proposal would be accepted by the USSR. In March 1983, a Working Paper by a

group of Socialist States, including the USSR, entitled 'Prevention of Nuclear War', was presented to the United Nations Committee on Disarmament. The paper proposed a freeze by all nuclear-weapon States on the production and deployment of nuclear weapons and their means of delivery, as well as on the production of fissionable material for the purpose of manufacturing various types of nuclear weapons, as a first step to the reduction and eventually the elimination of their nuclear arsenals.<sup>34</sup>

10.46 The Department of Foreign Affairs was less sanguine about both the use of unilateral initiatives to facilitate progress in disarmament and arms control or a nuclear freeze. On the first issue, the Department's basic position was that:

No country will disarm, nor accept controls on its weapons, unless it is satisfied that in so doing it is making itself not less secure. Indeed, it will have to be satisfied that none of its essential interests are jeopardised. This is why disarmament and arms control is necessarily a matter for negotiation and carefully worked out agreements; which take account of all the concerns of all participating governments.<sup>35</sup>

It also expressed a preference for maintaining existing patterns of negotiations, rather than institute new ones. As one departmental witness stated to the Committee:

People constantly keep coming up with suggestions. Why does not the international community do this? or why does not such and such a government do that? Some of these ideas are good, some of them are bad, but even when they are good the fact of the matter is that to get anything going such as strategic arms limitations talks or negotiations on a new treaty - for instance a test-ban treaty - is an enormously difficult process inside the major powers and internationally, and I think it important that people persevere with what they have going and try to get the most out of what is going.<sup>36</sup>

10.47 The need to satisfy the interests of the negotiating parties also underlies the Department's coolness towards a nuclear freeze. As described earlier, the Department stressed that a freeze would have to be mutually agreed and verifiable and it should not result in either side being advantaged. In evidence to the Committee, the Department stated that these concerns are reflected in the present U.S. Administration's opposition to a nuclear freeze.

... apart from particular arguments about the relative advantages and disadvantages inherent in the asymmetries of the overall parity, there is the underlying question of verification. This Administration is absolutely intent on the highest standards and the utmost reliability being built into verification provisions, and it simply sees no verification safety whatsoever in a freeze approach.<sup>37</sup>

It also gave the impression that it was not entirely happy with the Government's recent decision to reverse its earlier voting patterns and support a United Nation's resolution for a nuclear freeze.

10.48 The Department of Foreign Affairs thus favours formal negotiations over informal initiatives and it emphasises the importance of diplomacy both in dealings with individual countries and within the United Nations and other existing multilateral forums. It accepts that Australia should be prepared to use diplomatic pressure to influence the decisions and activities of individual governments but qualifies this with the view that:

The effectiveness of this Australian effort, essentially directed as it is at influencing the behaviour and decisions of other governments, will be sensitive to the state of Australia's general relations with the countries concerned, even including such matters as the state of our trading and other relations with them.<sup>38</sup>

10.49 The position taken by the Department was criticised by the Clergy for Peace which argued that an approach which places all its hopes for a successful contribution to the quest for disarmament on its diplomatic activity:

... is utterly vulnerable in terms of its usefulness to the whims of the superpowers. If they do not want arms control then Australian efforts at the UN Conference and elsewhere may fail. Prima facie, the evidence is that they do not; via their military arsenals, including nuclear weapons, the superpowers have acquired the political power to dominate our period in history. If they disarm, they disempower. The sorry record regarding the failure of the two UN special sessions on disarmament regarding the lack of success at the UN Conference in Geneva and regarding the failure of the bilateral talks indicates that at least at this point they seem to have no intention of disarming and thus disempowering.<sup>39</sup>

#### Discussion and Committee Views

10.50 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 Nation's initiatives such as the UN study group into concepts of security - of which Australia is a member - the World Disarmament Campaign and a leading role in the 1978 UN Special Session on Disarmament. There appears to be only minimal awareness within the community of these initiatives. The Committee recommends that greater publicity be given to Australia's present efforts to achieve global nuclear disarmament.

10.51 While noting the contributions just described, the Committee also found little evidence to suggest that the Department of Foreign Affairs or any other government agency is undertaking any serious or rigorous examination of total disarmament options or principles. Instead, the current emphasis of Australia's disarmament and arms control policies lies with arms control and partial disarmament issues which, while important in themselves, may not necessarily contribute to total or even significant nuclear disarmament. This is in spite of the fact that the Government's overall objective is the ultimate removal of the nuclear threat through the elimination of all nuclear weapons. The Department of Foreign Affairs' submission to the inquiry indicated the present emphasis would continue, when it stated that the Government:

... will continue to give the highest priority to nuclear weapons issues, notably to the moderation of the nuclear arms race, the cessation of nuclear testing and resisting the proliferation of nuclear weapons ... It would be consistent with what the Government has done to date to envisage a further development of the involvement of Australian Government technical resources in support of disarmament and arms control, especially in the fields of verification in relation to bans on chemical weapons and nuclear tests. Similarly, one might expect continued diplomatic activity by Australia bilaterally with particular countries; on a regional basis such as the development of the South Pacific Nuclear Free Zone concept; and in international bodies such as the United Nations General Assembly and the Conference on Disarmament.<sup>40</sup>

10.52 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.

10.53 The Committee notes that much consideration has been given to the question of disarmament within the United Nations. In 1959, the General Assembly unanimously adopted a resolution calling for general and complete disarmament under effective international control. In 1961, the United States' disarmament delegate John McCloy and the Soviet Deputy Foreign Minister Valerian Sorin tabled a U.S.-Soviet Joint Statement of Agreed Principles for Disarmament Negotiations. These stated that the goal of disarmament negotiations should be to achieve agreement on a program which would ensure:

- a. that disarmament is general and complete, and war is no longer an instrument for settling international problems; and
- b. that such disarmament is accompanied by the establishment of reliable procedures for the peaceful settlement of disputes and effective arrangements for the maintenance of peace in accordance with the principles of the Charter of the United Nations.

The program itself would seek to establish a position where states have at their disposal only such non-nuclear armaments and forces necessary to maintain internal order and security and to provide manpower for a United Nations peace force. National military establishments beyond the permitted limit were to be disbanded and military expenditures accordingly discontinued. The disarmament program had to be implemented by verifiable and balanced stages, under strict and effective international control.<sup>41</sup> The Joint Statement was approved by the General Assembly as the basis for the work of the newly created Disarmament Committee whose task was to reach agreement on general and complete disarmament under effective international control.

10.54 In 1978, the United Nations held its First Special Session on Disarmament which undertook a survey of all the problems relating to the arms race and disarmament. The Session's Final Document reaffirmed the basic conclusions contained in the 1961 Joint Statement and outlined a program of action and associated machinery for achieving general and complete disarmament.<sup>42</sup> The Final Document requested the Conference on Disarmament to elaborate a comprehensive program of action to ensure that the goal of general and complete disarmament under effective international control becomes a reality. The Conference examined various proposals and a negotiating text was submitted to the 1982 Special Session on Disarmament. The Session

was unable to reach agreement on the draft program and referred it back to the CD for further negotiations. In 1983, the Conference succeeded in transmitting to the General Assembly a more modest and briefer program. The Assembly asked it to continue elaboration of a comprehensive program and to submit a complete draft no later than 1986.<sup>43</sup>

10.55 The Conference on Disarmament has continued its work on a comprehensive program on disarmament although it has made little progress in resolving differences over a number of key issues including a comprehensive test ban, the prevention of an arms race in outer space, verification and the prevention of nuclear war.<sup>44</sup> The Committee recommends that Australia continue its efforts to overcome these obstacles in order to be able to present a complete draft program to the United Nations General Assembly in 1986.

10.56 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 and as a means of breaking the current impasse in arms control negotiations. An advantage of unilateral initiatives is that they are not dependent on negotiations. Thus they do not necessarily require a foundation of mutual confidence in order to be initiated. They also provide the potential for achieving considerable benefit at relatively little expenditure of resources. If made properly, disarmament initiatives can generate trust and prepare the way, either for a reciprocal move by the opposing side, or for the commencement of formal negotiations. They thus provide a means of halting and reversing the arms race which can complement more traditional approaches.

10.57 The Committee acknowledges that initiatives can be advanced for political and propaganda purposes, and that they need to be supplemented by formal negotiations and agreements if substantial progress is to be made in disarmament and arms control. To be successful, disarmament initiatives need to satisfy a number of important criteria. These have been described in a recent United Nations Report Unilateral Nuclear Disarmament Measures<sup>45</sup> and include:

- unilateral initiatives must not derogate the capacity of either party to meet aggression, nor should they threaten to increase insecurity or instability;
- they must be so designed and conveyed to an adversary as to emphasize a sincere intent to reduce tensions and invite reciprocation;
- they must be unambiguous and verifiable;

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 and chemical weapons and on-site inspections. It

recommends that the Government identify appropriate unilateral moves that could be made by each superpower in these areas and exert political pressure on them to undertake such moves.

10.58 The Committee notes the Government's decision to support the recent freeze resolution in the United Nations General Assembly. In this context, the Committee supports the concept of a verifiable nuclear freeze as a means of curbing the development of new weapons systems or technologies which threaten to destabilise the present system of deterrence. The eventual proposal must also 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. 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 a much lower level of armaments. The Committee recommends that the Government seek to develop a detailed proposal giving consideration to the combined submission from the Medical Association for Prevention of War (Australia), Scientists Against Nuclear Arms (Australia), the United Nations Association of Australia (NSW Branch) and the International Peace and Security Committee of the Law Council of Australia.

10.59 The Committee notes that the Government places considerable stress on verification, arguing that there will be no arms control agreements between the superpowers 'unless each side is reasonably confident the other cannot cheat on that agreement'. Verification forms a key element in Australia's contributions to international activities relevant to disarmament and arms control. It also forms a major justification for maintaining the presence of the Joint United States-Australian facilities in Australia. In view of the importance officially attached to verification, the Committee is concerned that there appears to be no detailed public statement on verification and its role in disarmament and arms control, or on the likely evolution and use of verification technologies. In particular, there is no definition of what, in Australia's view, should constitute an 'acceptable' level of verification to provide 'reasonable confidence' of compliance with arms control agreements favoured by us. This issue is taken up in more detail in Chapter 13.

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

10.60 Many submissions to the inquiry pointed to what they see 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. This criticism has taken a number of forms.

10.61 First, our alliance relationship is said to unduly compromise Australia's disarmament and arms control initiatives and our continuing efforts in the United Nations and the Conference on Disarmament. A spokesman for the Quaker Peace Committee of the Hobart Regional Meeting of the Religious Society of Friends informed the Committee that:

If Australia speaks out on disarmament, is it likely to be better heard by the nations of the world as an ally of the United States or as a neutral? In this sense we would have to think about Sweden, which is a country in some respects like ourselves with a rather small population. Sweden is listened to with respect. It seems to me that because we are geographically isolated this is to our advantage in our part of the world. There is no reason for us, military or otherwise, to be involved in a larger alliance and particularly one that appears at this stage to be saying that nuclear wars are winnable.<sup>46</sup>

A similar view was expressed by the New-Clear [sic] Awareness Group which submitted that 'Australia's present foreign policy is clearly seen by other nations as fully supporting the United States' projected defence outlook' and 'the role of the U.S. as self-appointed world policemen'.<sup>47</sup> Similarly, the Churches Commission on International Affairs of the Australian Council of Churches argued that Australia's links with the U.S. strategic defence network and our continued endorsement of the ANZUS Alliance have led to the official assumption:

... that Australia's interests are best served by supporting U.S. policy or at least by not counteracting that policy. The result of this approach is that any initiatives taken by Australia tend to be circumscribed by the boundaries of U.S. policies and accordingly carry less weight.<sup>48</sup>

Examples where this was said to operate included the nuclear free zone in the South Pacific, which provides for the passage of nuclear-armed warships and aircraft, Australia's current approach to the negotiations for a Comprehensive Test Ban and our earlier objections to a nuclear freeze.

10.62 A related view was that the imperatives of our alliance with the United States prevent Australians from being fully informed about the costs of the relationship. The NSW Branch of People for Nuclear Disarmament alleged, for example, that there is a 'reality gap' between official accounts of the functions of the joint facilities or the way in which deterrence is being practised and the views of independent experts. PND argued that this 'reality gap' will 'expand as public discussion



becomes more informed and the Government continues to issue statements that reflect views imposed upon them by bureaucrats and the U.S. Government. This in turn would lead to greater disenchantment with government policies and a continued expansion of the peace movement.

10.63 Others argued that because of its current links with the United States, Australia is morally responsible for the present U.S. strategic nuclear policies and their consequences, and so is obliged to do all it can to offset the negative aspects of these policies. The NSW branch of Greenpeace Australia for example, argued that it is the Government's moral obligation to the Government, by accepting the consequences of the current alliance with the U.S. and by exporting uranium to the U.S. It is morally responsible for U.S. strategic nuclear policy. Because of this, the Australian Government is obliged to use whatever leverage it may have in order to change the policy of the current U.S. administration in favour of major disarmament initiatives such as the CTBT. The Australian Government must approach the U.S. in a proactive way on this subject.

10.64 As the proposed solutions to these perceived weaknesses covered a large number of options ranging from increased diplomatic activity to complete withdrawal from the nuclear fuel cycle. Some argued that in spite of the superpower status the United States is dependent on its friends and allies to provide both moral and physical support for its policies. In their view, for example, the United States' early warning, surveillance and intelligence-gathering systems depend heavily on facilities located in Australia. They suggested that Australia should use this dependency to pressure the Americans either privately or publicly, to adopt a more conciliatory attitude toward its arms control and disarmament obligations especially those imposed by the Nuclear Non-Proliferation Treaty.

10.65 Others saw little point in attempting to directly pressure the US in this way, but considered that the facilities could be used to facilitate progress in arms control. Former Australian intelligence analyst, Mr. R. H. Mathams suggested for example, that Australia should use classified information received via the joint facilities and other intelligence sources to develop detailed arms control proposals that could be presented to the two superpowers. As a result of our partnership with the United States in Joint Facilities in Australia, we do not have unique access to detailed, reliable and accurate information about the strategic nuclear forces of both of the Soviet Union and the United States. I suggest that we apply those assets to the solution, as we see it,

of one or more of the major non-political problems that hinder arms limitation negotiations, such as the problem of equating dissimilar weapons systems.

Mathams claimed that United States officials are more likely to be impressed by tangible and expert proposals than by platitudes or pious statements about negotiations. He also claimed that the proposals should be developed by a specialist study group, made up of public servants and academics, which operated independently of the mainstream bureaucracy.

The problem, as I have seen it in the past, and as I see it now, is that those who have time to think about disarmament do not have access to all the data. Those who have access to the data either do not have the time or are not allowed to think about disarmament, and I think that that should cease. I believe that we could come up with quite responsible, and perhaps even unique, solutions to these problems. We could then present those solutions, either in the form of an argument or in the form of a request, to both the superpowers, and in this way perhaps materially assist in implementing negotiations between the two superpowers.

10.66 Dr Desmond Ball also expressed the view that the presence of the joint facilities in Australia gives us some leverage in respect of arms control and disarmament negotiations, and that they could be used in the way suggested by Mathams. He was less optimistic about Australia's ability to significantly influence the United States.

... the real scope for Australia to bring pressure on the United States is extremely minimal. The scope for the Arms Control and Disarmament Agency in the United States to bring pressure on the Pentagon is extremely minimal. The scope for people within the office of the Secretary of Defense concerned with arms control is extremely minimal. You are dealing with very complex bureaucratic entities, each with its own vested interests, each with its own perspectives and to some extent, each with its own political bases. There are just so many entities that adding another entity, that is, the Australian Government, it does not seem to me is going to add very much. So one has to be extremely cautious about the possibilities of Australia being able to do anything at all.

10.67 Others suggested that Australia should be more openly critical of U.S. policies and current postures in the Conference on Disarmament in Geneva. In their view, Australia should be prepared to align itself with neutral or non-aligned nations on specific issues rather than be seen as automatically contributing to, and playing a leading role, in organising the Western group of nations. A number of submissions argued that Australia should join with other small powers to determine ways to improve communications between the superpowers and pressure them into conducting meaningful negotiations. The NSW Branch of People for Nuclear Disarmament suggested that Australia should organise a conference made up of allies of the two superpowers which 'would look at ways in which these "client" states could get their "masters" to make concrete disarmament steps'.<sup>54</sup> Professor Harry Redner from Monash University also considered that the more 'peace-prone' powers within the Western alliance, such as Australia, Japan, Canada, Norway and Holland, should regularly consult to determine how they could 'work and act on the superpowers so that they can come to some sort of terms, at least minimal terms, as to how they are to manage their global rivalry'.<sup>55</sup> The perceived advantages of such an informal grouping were that they have common interests and common problems in dealing with the two superpowers. Moreover, Redner considered that the superpower competition is as much a symbolic struggle as a real one, and so is amenable to symbolic influences.

It is a struggle that goes on as much in the minds of the two superpowers as it goes on among their military powers and their arms. Anything that can be done to ease those symbolic psychological tensions; anything that can be done to remove, for example, the incredible Soviet paranoia at the moment and, at the same time, a certain prickishness of the American pride ... would be, I think, much to the good. I think this is where powers like Australia, Canada and the others I mentioned, acting in concert, can do an awful lot.<sup>56</sup>

10.68 Some submissions suggested that Australia should pursue more actively the establishment of independent means of verifying superpower compliance with existing or potential arms control agreements. It was argued that alternative means of verification would complement the existing National Technical Means employed by the superpowers, thereby increasing knowledge about the existing nuclear weapon states and so reduce uncertainties about their capabilities and intentions. It was also argued that an independent means of verification would reduce the ability of the superpowers to exploit verification issues for political purposes and would provide a means of pressuring them into negotiating agreements in some areas. It was recognised that Australia is making some valuable contributions in these areas already, in particular in the area of seismic monitoring and chemical weapons (see Chapters 7 and 14), but it was felt that our contributions could be increased.

The areas in which Australia should concentrate were said to include:

- a. the establishment of an independent, worldwide seismic monitoring network which would be capable of detecting and monitoring underground nuclear tests conducted by existing and suspected nuclear weapons states;
- b. the further investigation and establishment of an international satellite monitoring agency which would provide information on the military activities and forces of the superpowers and monitor their compliance with negotiated arms control and disarmament agreements; and
- c. the establishment of an international arms control verification agency, probably under the auspices of the United Nations, to monitor and report on compliance with existing arms control agreements and to examine the feasibility and scope of introducing new agreements.

10.69 A large number of submissions - principally from the peace movement - argued that Australia should withdraw completely from the nuclear fuel cycle. The various options that Australia could take in this regard were said to include:

- . making the ANZUS Alliance non-nuclear:

... ANZUS should be received in such a way that no party to it can claim the support of ANZUS to insist that Australia has obligations to cooperate with the nuclear weapons strategies of the United States. Specifically, and at the very least, ANZUS should not be used to protect the right of the United States to send nuclear-armed vessels or aircraft into our territory or to develop bases existing for the purpose of signalling to such vessels or aircraft in the event of a conflict.<sup>57</sup>

- . refusing to export uranium or uranium-related products (not all support this policy. Scientists Against Nuclear Arms, for example, does not have a policy on the peaceful uses of nuclear energy)<sup>58</sup>;
- . making a bipartisan declaration that nuclear weapons would never be allowed on Australian soil or never be used by Australian defence forces;

- banning all visits to Australian territories by nuclear-armed or nuclear-powered ships or aircraft;
- ensuring that the Australian Defence Force, scientific and research centres, and Australian industry do not contribute to the development of nuclear weapons or associated technologies; and
- closing or downgrading the joint Australian-United States facilities or transferring their verification and arms control functions to the United Nations.

10.70 Many also considered that Australia should concentrate on regional rather than global nuclear concerns. They argued that Australia is having little impact on the central balance and that it could more effectively pursue disarmament and arms control strategies that focused on our own area of interest, rather than on international concerns. Under a regional strategy, priority would be given to:

- a. minimising superpower presence and competition in Australia's area of interest through a combination of security arrangements and nuclear free zones. The latter would extend the current Treaty of Rarotonga to prohibit transit by nuclear-capable ships and aircraft, the testing of missiles and the maintenance of foreign or joint bases with nuclear war-fighting capabilities;
- b. reviewing Australia's present links with the superpower balance and our involvement in what are seen as some of the more destabilising developments in the nuclear arms race. These include testing and refinement of counterforce weapons; provision of porting facilities and services to ships carrying first strike and counterforce weapons; participation in nuclear strategic exercises; and extensions to U.S. strategic command, control, communications and intelligence facilities located on Australian soil; and
- c. cessation of Australia's own defence cooperation programs and research into military weapons and hardware.

#### Discussion and Committee Views

10.71 The view that Australia should take a much stronger and more independent stand on nuclear issues is based, firstly, on the belief that the continuing technological and doctrinal

changes in the military postures of both superpowers are increasing the risk of nuclear war. By providing strong moral and physical support for one of the protagonists, Australia is said to be directly contributing to this prospect. This view is not accepted by the Government and its supporters who consider that there is only a very remote chance of nuclear war occurring, due largely to the continuing efficacy of deterrence. Australia is said to contribute to this stability through its continuing support of the United States and its policies. It is further argued that withdrawal of this support is likely to weaken the West's resolve and increase the chance of nuclear war. The Government publicly accepts, however, that certain developments or projected developments in nuclear technology by both superpowers are threatening to undermine stable deterrence at least in the longer term. The need to prevent or contain these developments and preserve stability and balance in these strategic relations between the two superpowers forms the basic rationale for Australia's official arms control policies and its actions in the Conference on Disarmament and other multilateral arms control forums.

10.72 Some of the specific criticisms raised by the submissions are discussed in Part 4 of the Report which also addresses questions relating to the joint facilities, the mining and export of uranium and the South Pacific Nuclear Free Zone. As a preliminary observation, 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 to improve our national security interests.

10.73 The Committee further notes that while most of the 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. When questioned by the Committee, several groups sought to explain their emphasis on U.S. policies and actions in terms of the greater influence that Australia might be expected to exert over its American ally and their greater awareness of American policies and activities, contrasted with those of the closed Soviet system. While accepting these points, the Committee is nonetheless 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. 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.

10.74 These basic criticisms notwithstanding, the Committee notes that the Australian Government and its peace movement critics are concerned about continuing developments in the arms race. While they differ over the scope and import of these developments, they agree that Australia should do all it can to constrain or reverse developments that could undermine stable deterrence and increase the risk of superpower conflict. At present, the principal means of meeting this objective is via

the diplomatic and arms control processes. The question at issue is whether these processes are effective in inducing the superpowers to pursue actions and manage their relationship in ways which minimise the risk of military conflict.

10.75 Australia's Ambassador for Disarmament and the Department of Foreign Affairs argued strongly that the arms control process is effective and that Australia has been able to influence the United States in particular to change its policies. Mr Butler informed the Committee, for example, that Australian pressure in the Conference on Disarmament over the question of a resolution enabling negotiation on a test ban treaty led us 'to secure an abstention from the United States from a position where the previous year it had voted against a similar resolution, but a resolution which was actually less tough than the one we put through last year'.<sup>59</sup> Similar advances were said to have been made in other areas including the nuclear non-proliferation treaty review conference and the chemical weapons convention.

10.76 The Committee has already registered its concern about the over-emphasis which Australia has placed on the formal arms control process, particularly when relations between the superpowers are poor. It considers that the successes cited by the Department and its officers bear out this concern since, while important, they are hardly significant either in terms of the effort expended on achieving them or in terms of the Australian Government's own arms control objectives. The question is whether, in view of the complexity of the issues and the strong interests involved, these kinds of marginal changes are the best that can be hoped for? Or can Australia do more to pressure the two superpowers into pursuing more radical disarmament and arms control measures?

10.77 The view that Australia may be able to exert more influence by withdrawing from its present alliance commitments needs to be considered in terms of the potential benefits and costs of remaining a part of the Western alliance as well as any potential improvement in our ability to influence the behaviour of the superpowers. The benefits of our continuing relationships with the United States have been described in a number of earlier reports by this Committee, including The ANZUS Alliance, which was published in November 1982,<sup>60</sup> and the October 1984 report The Australian Defence Force: its structure and capabilities,<sup>61</sup> as well as the 1986 Review of Australia's defence capabilities<sup>62</sup> (the Dibb Report). These benefits include:

- a. continuing membership of ANZUS, or any similar bilateral defence relationship between Australia and the United States, provides Australia with a measure of deterrence against potential aggressors. Such an arrangement conveys to any potential aggressors within the region a strong signal, both from the United States and Australia, that this is not an area of low cost, low risk opportunities;

- b. ANZUS facilitates a strategic dialogue with the United States which gives Australia access to US-sourced technical-military intelligence, facilitating assessment of both global and regional developments that might affect Australia's strategic outlook;
- c. membership of ANZUS enhances Australia's diplomatic and military status within our local region;
- d. ANZUS and other agreements with the United States give Australia access to logistic support arrangements and a wide range of defence resources, including advanced technology, and supply and support for weapons systems and other defence equipment; and
- e. the Australian Defence Force derives considerable training benefit from the wide range of bilateral and multilateral exercises in which Australia participates with the United States.

10.78 As the Dibb Report concluded, Australia's formal relationships with the United States is also an expression of our membership of the Western Strategic Community, and it supports our regional security role. This latter role is generally welcomed by our near neighbours and regional states. 'In the South Pacific, ANZUS is a source of security for small island states without the need for direct superpower involvement. In South East Asia, the ANZUS relationship ensures the security and stability of ASEAN's southern flank. An Australian withdrawal from ANZUS would be seen by the region as destabilising'.<sup>63</sup> More fundamental still, is the fact that Australia's relationship with the United States reflects a common commitment to western political values as well as the principles of the rule of law, individual rights and social justice.

10.79 There is also a popular conception within Australia that the ANZUS Treaty in particular provides us with a security guarantee, although the Committee's two earlier reports made it clear that Australia cannot automatically expect to receive direct United States military assistance under all circumstances. In its report, The Australian Defence Force: its structure and capabilities, the Committee concluded, for example, that:

... for national security and force structure planning purposes, United States' assistance, in any form, should not be counted on but should be regarded as a bonus to Australia's own response capacity. Australia must plan to meet all levels of threat - including an initial attack by a superpower rival of the United States - on its own.<sup>64</sup>

Despite this view, the popular conception that there is a direct link between our alliance relationship and Australia's security continues to hold and is an important consideration which tends to be overlooked by many in the peace movement, leading them often to advocate politically unacceptable or unrealistic solutions. Andrew Mack, for one, warned of this discrepancy when he commented that:

if the peace movement is to make any progress in changing popular attitudes, it will have to show, first, that we are not currently threatened; second, that if we should be threatened in the future we are quite capable of defending ourselves; and third, that the United States cannot be relied on to come to our aid.

The first two requirements mean that we actually have to talk about defence. To establish whether or not there are any threats to our security... Independently of this we need to decide what it is that constitutes an appropriate defence policy for Australia.

10.80 The advocates of a non-aligned or neutral foreign and defence policy argue that Australia's continuing relationship with the United States has to be weighed against the potential costs and risks that are associated with the alliance. These include:

- a. the likelihood that at least the joint Australian-United States defence facilities would be on Soviet strategic targeting lists and could thus be attacked by nuclear weapons in the event of a military conflict between the United States and the Soviet Union;
- b. the possibility that Australian ports and other defence-related facilities could also be nuclear targets;

loss of sovereignty due in part to the presence of the joint facilities and to aspects of their operations over which Australia is alleged not to have sufficient control or to be inadequately consulted;

- d. distortion of Australia's national defence posture as a result of adopting policies better suited to the global defence strategy of the United States than our own defence needs; and
- e. diplomatic constraints on Australia which may conflict with or serve to constrain our foreign policy priorities, particularly those associated with disarmament and arms control.

10.81 Whilst the Government has rejected the above points, it nonetheless accepts that there are risks involved in hosting the joint facilities, but considers that these are more than outweighed by the contribution the facilities make to maintaining stable deterrence and peace. The Australian Prime Minister informed the Parliament in June 1984:

The Government believes that hosting the facilities does bring with it some degree of added risk of nuclear attack. But the maintenance of effective deterrence including through early warning has as its purpose the avoidance of war between the nuclear powers. Such a war would inevitably affect all nations, including Australia, and its avoidance is essential for the security of the Australian people.

The Government and the Opposition have also argued that Australia would suffer the consequences of a large-scale nuclear war, whether or not we have the facilities, through the 'nuclear winter' effect. In their view, as long as the facilities continue to contribute to stable deterrence they should be maintained. Those who advocate the removal of the joint facilities argue that the facilities are involved in far more than early warning and verification and that these other functions are actually undermining deterrence and increasing the risk of war between the superpowers. The Committee rejects this view and believes that the joint facilities should be maintained. These and other considerations surrounding the joint facilities are discussed in detail in Chapter 15.

10.82 In its earlier report on the ANZUS Alliance, the Committee also considered the arguments for and against the proposition that our current alliance relations distort Australia's defence and foreign policies. On that occasion, the Committee did not see any distortion of Australia's defence policy resulting from the ANZUS alliance. Nor did it consider that the ties between Australia and the United States were inimical to Australia's national or regional interests, or policies. The Committee concluded that it would not be in Australia's interest to withdraw from its current alliance commitments.

Withdrawal would not only have immediate and widespread implications for Australia's own security, but any significant decrease in the U.S. presence in the South Pacific and Indian Oceans resulting from it could seriously affect the stability of the whole region. It is difficult to predict what advantage the Soviet Union might take of a situation that separated Australia and the United States, but it could provide it with increased leverage throughout the region. The small island states would feel more exposed, the Soviets would have a freer hand to use their fleet

to intimidate small local states or to encourage subversion, and local Soviet allies or potential allies might feel they have greater manoeuvring room. Such developments would place greater demands on Australian naval forces which, deprived of the support of U.S. facilities, might find it difficult to fulfil their mission, thus significantly and adversely affecting Australian defence.<sup>67</sup>

The Committee accepted, however, that in many ways Australia's position differs markedly from that of its ally and that we can, and should, act separately where our interests diverge. It further considered that Australia can afford to disagree with the United States without harming the relationship, although it warned that Australia should not overestimate its ability to influence its ally. It also agreed with the view that Australia can sometimes operate more effectively by itself taking the lead regionally on behalf of the Alliance.

10.83 The Committee confirms the view held by successive Australian governments and the general findings and conclusions of earlier Committee reports and considers that it is not in Australia's interests to continue its alliance relationship with the United States or to pursue actions or policies that would place the relationship in jeopardy. 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. Similar considerations apply to the lesser options described on pages 43 and 44.

10.84 Having said this, the Committee acknowledges that Australia's security, and that of our region, is crucially dependent on developments in the global balance of power. As made clear in Chapter 6, Australia cannot hope to escape the consequences of a major military conflict between the superpowers and must do all it can to prevent any such occurrence.

10.85 In this context, the Committee notes the lack of progress in disarmament and arms control generally and the continuing development and deployment by both superpowers of new and potentially destabilising weapon systems and technologies. The Committee supports the view that a continuation of this trend could threaten stable deterrence and lead to an increased risk of military conflict. We are in a situation where, unless these trends are checked or controlled, our relatively secure and stable environment - which is underwritten by the continuing presence of the United States - may ultimately be undermined by broader changes in the global balance.

10.86 The Committee considers that as a longstanding ally Australia should stress the superpowers' common interest 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. The Committee further considers that Australia's position on these matters would be more effective if it sought to 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, as well as independent means of verifying existing and prospective agreements.

#### Community Liaison and the Provision of Information

10.87 The fourth area of concern raised in the submissions was that the Australian community is not sufficiently informed on nuclear matters, nor is it given adequate scope to either comment on or contribute to the policy-making process. For example, it was suggested that the quality of both public debate and public understanding of nuclear issues can only improve if people are able to be more involved in the Government's efforts and are able to be better informed. They argued that the Government could take a number of initiatives to improve community involvement. These included consultations with non-government organisation representatives; more priority to the UN-sponsored World Disarmament campaign; and more peace studies programs.

10.88 Some submissions criticised the Government on providing information on the Joint Facilities.

We appreciate that, for the first time, an Australian government has placed a statement concerning these bases on public record. However, we are disturbed that what is contained in that statement was considerably less than what is available on the public record in the United States and even less than is available here in such publications as 'A Suitable Piece of Real Estate' by Dr Desmond Ball. We ask for much greater openness on the part of the Government in stimulating public debate about the presence of these joint facilities and the ANZUS alliance, especially in preparation for the renegotiation date of Pine Gap.<sup>68</sup>

10.89 The Queensland Branch of the People for Nuclear Disarmament noted that Resolution 37/100J adopted by the General Assembly of the United Nations at its Second Special Session on Disarmament stated, in part, that Member States would 'facilitate the flow of a broad range of accurate information on disarmament matters, both governmental and non-governmental, to and among their citizens'. In line with this resolution, PND called on the Australian Government to:

... give the fullest possible support, both financial and otherwise, to those organisations devoted to the disarmament movement which have

wide links with the general community and are attempting to promote a more informed debate on disarmament matters.

10.90 A number of submissions were concerned that public debate on nuclear issues in Australia tends to be both oversimplified and biased. On the one hand, there were those who were suspicious of the Government's motivations and intentions. Dr Falk, for example, commented that:

the Government's information efforts can hardly be styled an 'objective' contribution, and are certainly not perceived as such by many in the peace movement. Perhaps, not surprisingly, government statements and publications tend to represent those arguments and highlight those 'facts' which support government policy. Having observed the information activities of the Ambassador for Disarmament within Australia since the creation of the position, his role within Australia is by now widely regarded in the peace movement as being little more than a public advocate for government policies.<sup>70</sup>

The Committee rejects this criticism as ill-informed. Ambassadors clearly must represent the views of the government of the day.

10.91 Other witnesses were of the opinion that many in the peace movement were unreservedly anti-American and at the same time not critical of the Soviet contribution to the arms race. In these respects they willingly or unwillingly contribute to the Soviet Union's policy goals and objectives. Some even suggested that the peace movement is indirectly manipulated by the Soviet Union. One witness stated, for example, that:

the peace movement is like a bus. There are a lot of people travelling upstairs who are fuelled by a desire for peace that we all have. Then there is the bus driver, I believe, who is driving according to ... that old world view of the United States being an imperialist aggressor, and the socialist camp, somehow, or other, being committed to a kind of peace.<sup>71</sup>

The Committee noted that many submissions tended to directly equate the United States' and Soviet positions without taking a sufficient account of the political and ideological differences between the two societies. The Committee recognises that these differences exist and that they will and should have a fundamental effect on national approaches and policies.

10.92's Others took a more conciliatory stand. The Australian branch of the Medical Association for Prevention of War (MAPW) submitted that current debate on disarmament tends to be polarised and uncompromising'. It considered that this was ultimately counterproductive and that the debate in Australia must be moved towards a 'middle' position which takes into account the perspectives and arguments of both sides. Accordingly:

MAPW is endeavouring to find a middle way between those whose hopes for peace are founded in strategies of deterrence and an increase in nuclear weaponry and those who see any part of nuclear technology as a threat to survival. We see the issues as complex and as incapable of immediate or precise resolution. Many who feel concern about these issues act out of frustration in ... angry or emotionally charged ways, just as we would hope that the Australian contribution to international debate would be independent, moderate and national, seeking to bridge the gulf between East and West, so we hope for debate in Australian society which gives greater prominence to the 'middle ground' and which addresses practicable and widely acceptable policies for peace.<sup>72</sup>

MAPW considered that the strength of the middle ground would be facilitated by Government support for:

- an increased study in the field of disarmament, including a wider range of fellowships and scholarships made available for Australians to study with the Disarmament Centre, (sic) in Canberra;
- the dissemination of a 'broad range of educational material on disarmament issues, continually updated and steadily promoted among students, political organisations, peace groups, churches, professional bodies, and the media; and
- the establishment of an office of Non-Government Organizations at which 'accredited Non-Government Organizations could participate in the preparation of study and educational materials appropriate to their particular needs'.

10.93 From evidence presented to the Committee, it is obvious that the Government's efforts to disseminate information on nuclear matters and the means that it employs to receive and

consider alternative views are very limited, although they are improving. The current means of providing information on government initiatives and activities are restricted to the following:

- a. publication of specific issue documents such as Uranium, The Joint Facilities, Disarmament and Peace;
- b. circulation of a Disarmament Newsletter which is compiled by the Department of Foreign Affairs 'to assist in the provision of information about Australia's disarmament and arms control activities and various international developments in this field'. The first newsletter was published in September 1983 and there have been 12 further issues published since then;
- c. presentation of speeches and papers at specialist conferences; and
- d. information tabled in Parliament and through media releases. Most of this information is also published in the journal Australian Foreign Affairs Record.

10.94 A spokesman for the Department of Foreign Affairs informed the Committee that the Department was 'conscious of the fact that there is scope for a good deal more basic factual information' to be distributed to the Australian community but that the ability to distribute information was hindered by a lack of resources. Subject to additional resources being made available, it was hoped that 'a new, basic and also fairly comprehensive information document' would be developed which described the government's activities in disarmament and arms control.<sup>73</sup> The Department claimed that the activities planned under the UN initiated International Year of Peace (IYP) were providing an important means of exchanging information and views on disarmament and arms control.

One of the advantages of having the International Year of Peace is that some resources will be made available and we will be able to do more. We will be able to publicise what is happening, how it is happening, and to try to educate people about the problems and the complexities of reaching arms control agreements.<sup>74</sup>

#### Committee Views

10.95 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.

10.96 The Committee is concerned that the public debate in Australia over nuclear issues tends to be limited and highly subjective. It supports the views of the Medical Association for the Prevention of War that the debate should be based on a detailed understanding and awareness of all views and perspectives. It recognises that the Government is doing more to keep the community informed of its efforts in the United Nations and other arms control forums. The Committee considers that factual information on problems associated with disarmament and arms control is not easily available and encourages the Government to provide this to attempt to initiate a more informed debate. This may be remedied to some extent by the work of the Australian Peace Research Institute in Canberra although the ability of the Institute to play a major role in raising public awareness is also limited (see next chapter).

10.97 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 of the Government's current policies and approaches. In this regard, it recommends that the Government:

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

#### A Ministry for Disarmament?

10.98 The kinds of issues described in this Chapter raise the question of whether Australia could achieve more in disarmament (and arms control) by establishing a separate government department specifically charged with developing Australia's policies in these fields, overseeing negotiation and implementation of agreements, and providing information to the public. Such a proposal was raised in a number of submissions to the inquiry. The Australian Conservation Foundation commented, for example, that:

If the Australian Government were really serious about promoting world peace, one of the things it



would do is establish an adequately funded Ministry for Peace, staffed with people committed to make peace their principal concern. The practical programs for the promotion of peaceful solutions to conflict cannot flourish in the prevailing environment of existing government departments, so that a separate ministry with alternative perspectives is needed if the democratic process is to produce the radically different solutions which are needed.

A similar view was expressed by Dr Falk from the University of Wollongong, although he was more guarded in his judgement of the potential benefits of such a proposal.

The viability and value of a Ministry for Peace depends largely on the degree of sincerity and objectives, with which it is established and supported. If there is a preparedness by the Australian government to make bold initiatives which do not ape the policies of one Superpower, the idea has great potential. In those circumstances a Ministry of Peace could be seen both within Australia and internationally as a bold demonstration of Australia's commitment to reversing the arms race. But if it were set up in such a way that it were seen as merely reinforcing existing Government policy then it would have little credibility.

10.99 The perceived advantages of establishing a separate department, rather than increasing the resources of the Department of Foreign Affairs, included the view that it would give institutional form to the Government's overall disarmament objectives; provide for an increase in trained and full-time professional staff; provide improved community liaison and dissemination of information about Australia's policies and activities; and provide for a better integration of disarmament and arms control perspectives within the national policy-making process. In this last context, Dr Keith Suter, author of the book *Ministry for Peace* and a member of the United Nations Association of Australia, has argued that if disarmament remains part of the responsibility of the Department of Foreign Affairs, then:

all disarmament considerations will be viewed within the context of wider foreign policy issues, for example, the need not to offend allies while also missing no opportunity to criticise other less friendly nations. Instead of disarmament being seen as an important objective in its own right, it will always be subservient to other considerations, some of which are accelerating the

arms race. This is obviously not satisfactory since the threat of a world war - a nuclear war - is the most acute and urgent task of the present day. If we are to take that view seriously, then it must guide all other relevant political factors. Disarmament considerations must come first.

The principal disadvantages of such a proposal, however, include the fact that it would have to rely on the resources of existing (and competing) departments, that it would duplicate many of the functions already carried out by other ministries, and would be unlikely to attract widespread political or bureaucratic support.

10.100 A possible alternative to a Ministry for Disarmament would be to establish a separate statutory authority similar to the United States Arms Control and Disarmament Agency (ACDA). The ACDA was established by the U.S. Congress in 1961 as an independent agency of the federal government with responsibility for developing, negotiating and implementing international agreements to control and reduce arms. The U.S. legislation also provided for a General Advisory Committee to advise the President, Secretary of State and the Director of the ACDA on specific arms control issues. The group is usually made up of former high-level government officials and private citizens of distinction. Its last report was on the question of Soviet compliance with existing arms control treaties (see Chapter 2).

10.101 Since its inception, the Arms Control and Disarmament Agency has enjoyed rather a mixed fortune, reflecting the prevailing attitudes of successive administrations towards the importance of arms control generally. The ACDA has always had only limited financial and manpower resources and has, at times, been subject to considerable political controversy, particularly over the appointment of senior staff. Despite this, it played a key role in the establishment of the NPT and the 1972 ABM Treaties, and helped negotiate the agreements banning nuclear weapons from outer space and the ocean floor. It also prepares and publishes reports on different aspects of the arms competition including the annual *World Military Expenditures and Arms Transfers*.

10.102 The Committee considers that there is potential merit in providing institutional form to Australia's disarmament and arms control activities and initiatives. We have already done this in establishing an Ambassador for Disarmament which has attracted widespread praise within Australia and overseas. It is clear that the workload and responsibilities associated with disarmament and arms control are increasing and that they are placing an increasing workload on the Department of Foreign Affairs. The Committee recognises that the resources within the Department and in New York and Geneva have either been increased or supplemented in recent years and that Departmental officers are providing professional and timely advice on an increasing range of subjects. Despite these advances, the Committee considers that the resources devoted to disarmament and arms

control are still inadequate for the tasks currently involved and envisaged.

10.103 The Committee sees benefits in establishing an independent official voice in disarmament and arms control which would advocate practical arms control measures, contribute to negotiations, and inform the Australian public and Parliament about the need for disarmament and arms control. 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 responsible to the Minister for Foreign Affairs 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.

CHAPTER TEN  
END NOTES

1. Uranium, The Joint Facilities, Disarmament and Peace, Canberra, Australian Government Publishing Service, 1984, pp.14-15.
2. Uranium, The Joint Facilities, Disarmament and Peace, p.12.
3. Uranium, The Joint Facilities, Disarmament and Peace, p.13.
4. Department of Foreign Affairs, Submission, p.88.
5. Department of Foreign Affairs, Submission, p.89.
6. Evidence, 23 May 1984, p.47.
7. House of Representatives, Hansard, 6 June 1984, p.2988.
8. House of Representatives, Hansard, 6 June 1984, pp.2987-88.
9. Uranium, The Joint Facilities, Disarmament and Peace, p.16.
10. National Coordinating Committee, Scientists Against Nuclear Arms, Submission, pp.S1242-3.
11. Clergy for Peace, Submission, p.S627
12. People for Nuclear Disarmament (Victoria), Submission, p.S568.
13. People for Nuclear Disarmament (Victoria), Submission, p.S571.
14. People for Nuclear Disarmament (Victoria), Submission, p.S571.
15. Dr J. Falk, Submission, pp.S1199-S1206.
16. Evidence, 24 April 1984, p.7.
17. Evidence, 23 May 1984, p.21. On 21 July 1986, the Sub-Committee wrote to the Department of Foreign Affairs pointing out that there appeared to be a difference of opinion between Foreign Affairs and Defence over how deterrence should be carried out and asking for written answers to a number of specific questions. The questions and the Department's answers (Supplementary Submission, dated 2 September 1986) were as follows:  
  
Q1. whether there is a conflict of views between the two departments over nuclear deterrence?

A1. Government Departments cannot have views different from Government policies. The Government's policy on nuclear deterrence is quite clear. As the Prime Minister said on 6 June 1984:

'The preservation of peace between the nuclear powers has for many years been dependent upon a situation of stable deterrence. Maintaining, and where possible enhancing, the stability of that deterrent relationship is the objective of this Government in these matters. Deterrence can be pursued through any means of convincing a potential aggressor that he would face unacceptable costs, but stability requires discrimination and restraint.'

We do not believe there can be a winning side in a nuclear war. The notion of a nuclear first strike designed to disarm an adversary would be destabilizing were it to gain credence.

Nor can there be any assurance that nuclear conflict between the superpowers could be limited. This Government's voice on such matters will be directed towards supporting doctrines which eschew moving beyond the requirements of stable deterrence towards postures more appropriate to waging nuclear war in some limited and controlled way.'

Q2. Is it true to say that the Minister and the Department of Foreign Affairs appear to favour a system of nuclear deterrence based on mutual assured destruction only?

A2. In short, yes. The Government does not 'favour' any system of deterrence but knows that the prospect of mutually assured destruction ensures the nuclear weapon States are extremely cautious in their dealings with each other to ensure that they do not come into conflict. At the same time, in the Government's view, it would be the height of folly to place any reliance on a capacity to limit a nuclear conflict or to see nuclear war fighting as a rational means of seeking to achieve any conceivable objective. As both President Reagan and General Secretary Gorbachev say, 'a nuclear war cannot be won and must never be fought'.

Q3. Is the 'countervailing' theory of deterrence as currently practised by the United States, and reflected in existing Soviet strategic doctrine, acceptable to the Department?

A3. The Government regards nuclear deterrence as 'acceptable' only in the limited sense that it would not wish to see nuclear deterrence disturbed or destabilised while negotiations and other efforts continue towards an improved situation in which nuclear deterrence and nuclear weapons would no longer be regarded as necessary by any country. The Government's support for deterrence rests on the view that there is no other credible option currently

available and that it is only an interim position on the road to the ultimate goal of complete nuclear disarmament. This does not involve Australia endorsing the specific theories of deterrence propounded or followed by any of the nuclear weapon States at any particular time.

Q4. Should Australia seek to influence the two superpowers to move towards a system of nuclear deterrence based on mutual assured destruction?

A4. Australia will continue to work for arms control, disarmament and improved East-West relations with the aim of achieving 'common security' which would not rely on mutual threats. It will also continue to urge all nuclear weapon States, in the Prime Minister's words, 'to eschew moving beyond the requirements of stable deterrence towards postures more appropriate to waging nuclear war in some limited or controlled way'.

18. Evidence, 23 May 1984, p.51.

19. Report of the Secretary of Defense Caspar W. Weinberger to the Congress on the FY 1985 Budget, FY 1985-9 Defense Programs, February 1 1984, US Government Printing Office, 1984, p.29. Cited in Department of Defence, Evidence, 23 May 1984, p.46. In response to the Committee's inquiry on possible differences between Foreign Affairs and Defence over how deterrence should be carried out, the witness from the Department of Defence submitted supplementary evidence (dated 29 July 1986) which stated, inter alia, that the attitudes of the two departments were 'very much in accord'.

'...we agree with Foreign Affairs that deterrence, for all its shortcomings, is the only effective arrangement that is available now for avoiding conflict between the superpowers. We agree also that the idea of a "limited" nuclear war is altogether unrealistic, because of the high and unavoidable risks of escalation to global nuclear war that would be inherent in any such conflict. And we further agree that the pursuit of nuclear "superiority" by either side is quite inconsistent with the requirements of international security.'

The witness further stated that the U.S. 'rationale for the original development of counterforce and tactical nuclear weapons' was 'primarily to assist in deterring Soviet conventional attack on Western Europe.'

'A common misunderstanding is that the existence of counterforce weapons, and other weapons that are capable of destroying hardened targets, implies that the U.S. (or, for that matter the USSR) is actually pursuing a "limited nuclear war fighting" strategy. Although such weapons would be necessary for such a purpose, they are ... intended by the U.S. to maintain a comprehensive and credible deterrent to the USSR, having regard to the size and capabilities of Soviet military forces as well as U.S.

assessments of what the USSR values most. Nor does the existence of weapons systems that are capable of destroying hardened targets necessarily mean that either side is seeking to acquire a "first strike" capability in any meaningful sense of that term. As long as the U.S. and USSR lack the means to destroy relatively invulnerable systems such as the other side's ballistic missile submarines, neither side has any rational interest in attempting to conduct a "disarming" first strike on the other. Stable deterrence would be undermined were either side able to destroy all of the other's strategic nuclear forces in a "disarming" first strike, but neither side can do so and nor is the capability in prospect.

In our view, it is clear that Australia's interests as well as those of the international community as a whole are sustained by capabilities which contribute to a stable and effective system of deterrence. We do not regard "counterforce" weapons, or "hard target capable" weapons, or "theatre" weapons as being inimical to such a system but we recognize that, if deterrence were to break down, conventional war might escalate very quickly to theatre nuclear war and then to global nuclear conflict. In these circumstances it is imperative that a better basis be found for regulating the superpower competition in the longer term.'

20. See Coit D. Blacker and Gloria Duffy, International Arms Control: Issues and Agreements, Second Edition, Stanford, California, Stanford University Press, 1984, p.3.
21. The South Australian Committee of Support for the United Nations Special Session on Disarmament, Submission, p.S874.
22. Clergy for Peace, Submission, p.S627.
23. Conservation Council of South Australia, Submission, p.S779.
24. Australian Quaker Peace Committee, Submission, p.S779.
25. Social Responsibility Committee of the Uniting Church in Australia (Queensland Synod), Submission, pp.S280-81. See also Action for World Development, Submission, p.S958.
26. Evidence, 23 May 1984, p.42.
27. Evidence, 29 March 1985, p.593.
28. Returned Services League of Australia, Submission, p.730.
29. Evidence, 29 April 1985, p.78.
30. Australia Quaker Peace Committee, Submission, p.S780.

31. Action for World Development, Submission, p.S955.
32. Submission, pp.S120-S132.
33. Evidence, 16 July 1984, p.176.
34. Medical Association for Prevention of War (Australia), Scientists against Nuclear Arms (Australia), United Nations Association of Australia (NSW) and International Peace and Security Committee of the Law Council of Australia, Submission, p.S131.
35. Department of Foreign Affairs, Submission, p.S55.
36. Evidence, 23 May 1984, p.16.
37. Evidence, 13 May 1985, p.908.
38. Department of Foreign Affairs, Submission, p.S34.
39. Evidence, 30 July 1984, pp.428-9.
40. Department of Foreign Affairs, Submission, p.S33.
41. See Allan McKnight and Keith Suter, The Forgotten Treaties: a practical plan for world disarmament, Law Council of Australia, 1983, pp.25-27 for a complete statement of the principles.
42. Final Document of Assembly Session on Disarmament, 23 May-1 July 1978, United Nations Office of Public Information, September 1979.
43. Armament and Disarmament, United Nations Department of Disarmament Affairs Information Paper, February 1985, p.24.
44. See Report of the Australian Delegation to the 1985 Session of the Conference on Disarmament, Geneva, 5 February-30 August 1985, p.28; and Department of Foreign Affairs, Disarmament Newsletter, No 12, 20 March 1986, p.10.
45. Unilateral Nuclear Disarmament Measures
46. Evidence, 30 April 1985, p.813.
47. New-Clear Awareness Group, Submission, p.S875.
48. Australian Council of Churches Commission on International Affairs, Submission, p.S660.
49. People for Nuclear Disarmament (NSW), Submission, pp.S55-S66.
50. Greenpeace Australia (NSW), Submission, p.S134.

51. Evidence, 9 August 1984, p.508.
52. Evidence, 9 August 1984, p.508.
53. Evidence, 9 August 1984, p.586.
54. People for Nuclear Disarmament (NSW), Submission, p.S60.
55. Evidence, 30 July 1984, p.353.
56. Evidence, 30 July 1984, p.396.
57. People for Nuclear Disarmament (Queensland), Submission, p.S236.
58. See Evidence, 29 April 1985, p.763.
59. Evidence, 7 June 1984, p.82.
60. Australian-United States' Relations: The ANZUS Alliance, Report from the Joint Committee on Foreign Affairs and Defence, Australian Government Publishing Service, Canberra, 1982
61. The Australian Defence Force: its structure and capabilities, The Parliament of the Commonwealth of Australia, Joint Committee on Foreign Affairs and Defence, Australian Government Publishing Service, Canberra, 1984
62. Review of Australia's Defence Capabilities, Report to the Minister for Defence by Mr Paul Dibb, March 1986, Australian Government Publishing Service, Canberra, 1986
63. Review of Australia's Defence Capabilities, p.46.
64. The Australian Defence Force: its structure and capabilities, p.39.
65. Andrew Mack, 'The Peace Movement, the Public and Australia's Defence', in Labor Forum, Volume 6, No 3, p.11.
66. House of Representatives, Hansard, 6 June 1984, pp.2897-8.
67. Australian-United States' Relations: The ANZUS Alliance, pp.82-3.
68. Evidence, 30 June 1984, p.435.
69. People for Nuclear Disarmament (Queensland) Submission, p.S242.
70. Dr J. Falk, Supplementary Submission.

71. Evidence, 16 July 1984, p.212.
72. Medical Association for Prevention of War (Australian Branch), Submission, p.S953.
73. Evidence, 13 May 1985, p.929.
74. Evidence, 13 May 1985, p.932.
75. Australian Conservation Foundation, Submission, p.S1269.
76. Dr J. Falk, Supplementary Submission.
77. Keith D. Suter, Ministry for Peace, United Nations Association of Australia, 1984, p.69.