ISIS
International
Security
Information
Service

British Nuclear Weapons Policy: The Next Steps

Author: Dr. Malcolm Chalmers

Special ISIS Report on the Future of UK Nuclear Weapons, Fissile Materials, Arms Control and Disarmament Policy, No.1 (of three), May 1997.

ISIS

International Security Information Service

Carrara House 20 Embankment Place London WC2N 6NN Tel: 0171 839 7772 Fax: 0171 925 0861

ISIS is a non-partisan information service to Parliamentarians and other interested parties. ISIS takes neither a corporate view nor a campaigning stance. Authors of ISIS publications speak only for themselves and within their own particular field of expertise.

This paper is the first in a series of three special reports on the future of the UK's nuclear weapons, fissile material and arms control and disarmament policy. Their publication is made possible by grants from two US Foundations - The Ploughshares Fund and the W. Alton Jones Foundation.

Dr. Malcolm Chalmers is a Senior Lecturer at the Department of Peace Studies, University of Bradford.

For further information Tel: 01943 872031

Malcolm is greatly indebted to Hugh Beach, Ken Booth, Lawrence Freedman, Mike Gapes, Frank Judd, Michael MccGwire, Robert O'Neill, Stephen Pullinger, William Wallace and William Walker for their detailed and incis ive comments on an earlier draft of this report.

British Nuclear Weapons Policy: The Next Steps

1. Introduction

The new government has announced its intention to conduct a thorough review of Britain's defence policy and commitments in the light of the rapid changes in the international environment since the end of the Cold War. This report suggests that one area in which a serious review is required is nuclear weapons policy. It begins by summarising some of the key trends of recent years and setting out a medium term objective of progressive 'marginalisation' of nuclear weapons. It then discusses some of the key issues which a review of nuclear weapons policy should address.

2. Trends and Objectives

The last seven years have seen a rapid winding down of the massive nuclear stockpiles built up during decades of Cold War. The combined nuclear arsenal of the US and the Soviet Union / Russia has declined from an estimated 61,000 warheads in 1990 to around 36,000 warheads in 1997, and is projected to fall to 21,000 by 2003.¹ There has been a particularly rapid marginalisation of the role of tactical nuclear weapons. In 1985, the US had around 6,500 nuclear weapons stationed in Europe as part of its 'flexible response' strategy, including F-111 aircraft, Poseidon missile submarines, and ground-launched cruise missiles in the UK and elsewhere. By 1997, however, almost all this vast arsenal had been dismantled. The US is now reported to have 'little more than 100' nuclear weapons deployed on land in the whole of Europe, stored in nine storage vaults in seven countries. The sole British site for US nuclear weapons is now Lakenheath, where two squadrons of F-15E bombers are based.²

The pace of strategic arms reductions has also been rapid. The March 1997 Helsinki agreement to negotiate a START III Treaty, involving a reduction in US and Russian arsenals to 2,000-2,500 strategic warheads each by 2007, marks a major step forward, and will, if implemented, reduce the number of deployed strategic warheads by two-thirds from START I levels. Moreover, in an effort to ensure the irreversibility of deep reductions, START III will be the first agreement to include transparency and destruction measures in relation to warheads.³

Recent steps towards nuclear disarmament by the two former superpowers has been paralleled by progress in the international effort to halt nuclear proliferation. Several of the countries identified as serious concerns in the past - such as Argentina, Brazil and South Africa - have now stepped back decisively from the brink. Ukraine, Kazakhstan and Belarus have successfully denuclearised. Nuclear-weapon-free zones have been

¹ Joseph Ansemo, 'Russian threat still massive', Aviation Week and Space Technology, 24 February 1997.

² Peter Almond, 'NATO Tactical Nuclear Weapons: Going, Gone?', *Disarmament Diplomacy*, 12, January 1997, p. 9.

³ Previous strategic arms treaties only actually verified limits on the number and type of delivery vehicles.. As a result, the US and Russia are estimated to have several thousand additional strategic warheads which do not count against START I or START II entitlements.

established in Africa, South-East Asia and the South Pacific, complementing the long-standing Tlatelolco Treaty in Latin America. Not least, the Nuclear Non-Proliferation Treaty (NPT) has been extended indefinitely, and, with the significant exceptions of India, Israel and Pakistan, membership is now near-universal. Verification of NPT commitments has been significantly strengthened in the light of the Iraqi experience. Not least, a Comprehensive Test Ban Treaty, an aspiration of the arms control community for four decades, at last became a reality in 1996.

The long term goal: total nuclear disarmament?

The processes of nuclear disarmament and countering proliferation are integrally linked in the NPT. As part of the indefinite extension agreed in 1995, the five nuclear weapons states reaffirmed their commitment to

'the determined pursuit ... of systematic and progressive efforts to reduce nuclear weapons globally, with the ultimate goal of eliminating those weapons.'

In order to be seen to be fulfilling this commitment, nuclear weapons states need not only to reaffirm their commitment to the long term goal of nuclear disarmament. They will also have to convince the world's 183 non-nuclear NPT signatories that they are taking active measures to move the process of disarmament forward. Without such measures, the NPT will continue to be at risk of long term erosion by those who see it as an inherently discriminatory arrangement.

Although it is vital that the five nuclear weapons states continue to make clear their commitment to the long term goal of elimination, the fulfilment of this goal will depend on the prior resolution of many difficult political problems. Complete nuclear disarmament will require, *inter alia*, that Russia proves willing to give up the last symbol of its previous superpower status, that suspicions between Israel and its neighbours have improved to such an extent that proposals for a nuclear-free Middle East can come to fruition, and that both India and Pakistan are willing to agree to a denuclearisation of their fraught relationship. Not least, complete elimination of nuclear arsenals assumes that countries such as Iraq, North Korea, and Libya - which have sought to compensate for conventional military weakness by investing heavily in nuclear weapons programmes - can be persuaded to abandon such efforts.

None of these developments are, taken individually, impossible. But none are inevitable. All will require the sustained application of political energy and power by the leading states in the international system. Prospects for nuclear disarmament are better than they have ever been. Yet, because of the sheer size of the nuclear arsenals built by the US and Russia during the Cold War, the goal of complete elimination of nuclear stockpiles may not be even technically achievable for 15 years or so. For both political and technical reasons, therefore, international society will have to find ways to live with the nuclear problem for some time to come.

Even if all nuclear weapons are physically eliminated, they will remain a factor in international affairs. States will remain aware that nuclear weapons can be built, and some states will retain detailed knowledge of how to do so. Even under a stringent regime of international verification and control, 'complete nuclear disarmament' cannot prevent a well-resourced state with civil nuclear facilities from retaining the technical capability to 'break out' from an elimination agreement and rebuild a small nuclear arsenal within a period of months. The prospect of such a state of affairs - which has been described as one of 'virtual deterrence' - throws up many new and complex

issues which the international community has so far done little to address.⁴ Not least, there needs to be much more discussion of the relative merits of 'virtual deterrence' compared to the maintenance of secure and verifiable 'minimum deterrent' arsenals at low levels of alert.

Marginalisation as a medium term objective

The survival of the NPT regime depends on the continuing commitment of the five nuclear weapons states to the goal of elimination of nuclear weapons on a verifiable and multilateral basis. But attainment of this goal, it is generally agreed, is not a practical possibility during the next 5-10 years. As a result, there is not yet a pressing need to reach a precise agreement on what it means, or on what conditions, political and technical, will need to be fulfilled in order to implement it.

The absence of such a pressing need allows international efforts to be concentrated, in the short and medium term, on sustaining the broad consensus that now exists for progress towards further marginalisation of nuclear weapons. Many of those who argue that elimination is unlikely to be a realistic option for decades to come nevertheless support measures to reduce the salience, cost and risk associated with a nuclear world.⁵ Progress in marginalisation is likely to be more rapid, and sustainable, if this broad consensus can be maintained.

The key to a strategy of further marginalisation will be a series of measures, each designed to reduce the importance of nuclear weapons in international affairs, and each opening up possibilities for further measures. As already stated, since the end of the Cold War, considerable progress has already been made in this direction. As a consequence, new opportunities have been opened up. These include:

- * Further sharp cuts in US and Russian arsenals, implementing the START II and III agreements, and then going beyond these to levels of less than a thousand warheads each.
- * A Treaty to end the production of fissile material for military purposes, and to subject remaining stocks of such material to international safeguards.
- * Measures to remove deployed nuclear forces from 'hair trigger' alert, including the separation of warheads from missiles.
- * Agreement to subject remaining nuclear forces to increasing levels of transparency and verification.
- * Strengthening of existing international norms against the use of nuclear weapons, both through formal 'security guarantees' and through further development of national military doctrine.

⁴ For a valuable recent discussion, see Michael Manzer, 'Virtual Nuclear Arsenals', *Survival*, Autumn 1995, 37, 3, pp. 27-44. Manzer suggests that 'the knowledge of how to rebuild the weapons is just the thing that would make abolition possible, because it would keep deterrence in force.'

⁵ For example, see Michael Quinlan, *The Future of Nuclear Weapons in World Affairs*, Atlantic Council of the United States, VII, 9, November 1996.

* A conscious effort to update arrangements that are widely perceived as giving privileged political status to states that possess nuclear weapons. For example, the inclusion of non-nuclear states in the UN Security Council permanent membership would provide an opportunity to end the correspondence between nuclear possession and 'top table' status that has been in existence since 1971.6

Steady progress in the implementation of this ambitious agenda will eventually create circumstances, perhaps by around 2010, in which an elimination agreement begins to be seen as a realistic technical possibility. Whether such an agreement is politically feasible will depend on a whole range of broader factors on which only speculation is now possible. Even if elimination proves impossible, however, the determined pursuit of marginalisation will continue to be valuable in its own right as a means of strengthening the NPT, reducing the salience of the gap between nuclear 'haves' and 'have-nots', and enhancing global security.

Nuclear weapons and British politics

Britain's possession of nuclear weapons has been a subject of fierce political controversy in the past, notably in the periods of increased superpower tension in the early 1960s and in the early 1980s. In the 1983 and 1987 elections, its opposition to the British nuclear force is widely believed to have contributed to the size of Labour's defeat: not least because the nuclear deterrent became a powerful symbol of national sovereignty and status.

As the salience of defence issues in domestic politics has fallen, however, the focus of the sovereignty debate has shifted to economic affairs. In 1997, it is the abolition of the pound - not the scrapping of British nuclear weapons - that threatens to destroy the unity of political parties. By contrast, the defence issue was barely detectable in the recent General Election campaign. Remarkably, there was no mention at all of nuclear weapons in the Conservative Party manifesto.

Part of the explanation for the reduced saliency of the nuclear debate lies in the convergence between the policies of the major parties on the issue. The Labour Party abandoned its commitment to unilateral nuclear disarmament before the 1992 election. The Conservative government reinforced the trend towards consensus in the early 1990s by taking a series of disarmament initiatives. The Royal Navy eliminated its tactical nuclear weapons, and the Army gave up its nuclear role entirely. The RAF is now due to withdraw all its remaining WE-177 nuclear bombs from service by the end of 1998, at which point Trident will become Britain's sole nuclear system. Not least, under intense pressure from the US, the Conservative Government agreed to back a Comprehensive Test Ban Treaty.

Some differences in emphasis between the three main parties remain, however, as the extracts from recent Liberal Democrat and Labour policy statements in Appendices 2-4 show. Both parties stated that, if elected, they would not deploy more warheads on Trident than had previously been deployed on Polaris. Both committed themselves to carrying the disarmament process forward more vigorously than had the previous government.

⁶ Communist China became a permanent member of the UN Security Council in 1971. Although the UK was a permanent member of the Council from its inception in 1945, it only became a nuclear weapons state in 1952.

If the new Labour government does decide to give higher priority to this area, it will find many allies amongst other governments. The pursuit of a more pro-active approach by London would be welcomed by the Clinton administration which, since 1993, has taken a series of initiatives to move the nuclear disarmament process forward. It would be applauded by the increasing number of non-nuclear OECD states - such as Australia, Germany and Sweden - that are actively engaged in seeking progress in this area. Not least, it would be welcomed by many non-nuclear states in the developing world who are looking to the five nuclear weapon states to live up to their obligations under the Non-Proliferation Treaty by making serious and sustained efforts to move the process of nuclear disarmament forward.

Unilateralism

An incremental approach to nuclear disarmament, emphasising the need to carry the multilateral process forward, will be opposed by those who argue for unilateral abandonment of British nuclear weapons. For some supporters of such a policy, the justification is primarily a moral one. They cannot envisage any circumstances in which a British government would be morally justified in using these horrific weapons. They therefore reject a policy of continued possession that inevitably involves a readiness, at least in principle, to use them.

There is also a consequentialist argument for unilateral elimination. Such a step, it is argued, would help to move the process of global disarmament forward more forcefully than continued possession. Britain is safer than it has ever been from external attack, and it would not contemplate acquiring nuclear weapons if it did not already possess them. Other countries - like Argentina, Brazil and South Africa - have recently been willing to give up their own nuclear weapon programmes. Britain, it is suggested, should follow suit, setting an example for further countries to follow.

Yet such a dramatic gesture would, in current circumstances, be both irrelevant and counterproductive. It would be irrelevant because, in contrast to the early 1980s, there is no 'logjam' in superpower arms control that needs to be broken. As a result, even CND's ten point blueprint for a nuclear weapons free world makes no mention of proposals for unilateral British nuclear disarmament. It would be counterproductive because it would risk losing an important opportunity for building public support behind a constructive disarmament policy. As stated earlier, Labour's commitment to unilateral nuclear disarmament was widely perceived as having contributed to its crushing defeats in the General Elections of 1983 and 1987. No political party will want to take such a risk again: not least because it is not clear what benefit, if any, would be achieved in terms of carrying the international disarmament process forward.

This does not mean that the UK can do nothing without international consensus. A clear distinction needs to be made between unilateral nuclear disarmament - i.e. the unilateral elimination of Britain's entire nuclear capability - and unilateral initiatives. The latter will continue to play a useful role in moving the process of marginalisation forward. The UK's decision to end the nuclear roles of its Army and Air Force was not

⁷ Eddie Goncalves and Martin Jones, *Blueprint for a nuclear weapons-free world*, CND Publications, August 1996.

6 made subject to international agreement. Further unilateral measures can, and should, be considered.

Nor does opposition to unilateral nuclear disarmament today rule out the possibility that the UK might eventually give up its own nuclear force before all others do so. When the time comes to decide on whether to replace Trident with a new generation of nuclear system, nuclear weapons may have become increasingly irrelevant. By 2015, current proliferation concerns (such as those relating to Iraq, Iran and North Korea) may no longer exist, nuclear disarmament by the five existing nuclear weapons states may be at an advanced stage, and the prospects of major inter-state conflict may have become increasingly remote. In such a benign world, the British defence budget is likely to be much lower (at least as a proportion of national income) than it is today. The government may decide it is best to spend limited defence resources on more pressing concerns, such as peacekeeping and peace enforcement capabilities.

If Britain does decide not to replace Trident in these circumstances, however, unilateral nuclear disarmament will not be a grand gesture, designed to bring the rest of the world to its senses. It will be a pragmatic adjustment to a new world situation in which nuclear weapons no longer matter as much as they did in the late 20th Century.

A world in which nuclear weapons have become irrelevant is, however, not the only possible scenario for the next 20 years. While seeking to move towards such a goal, prudence also demands preparation for less benign futures. Interstate conflict between states with nuclear weapons could become more likely, for example in the Middle East, South Asia and North-East Asia. Russia could become increasingly embittered by its diminished post-Cold War status, posing dangers of a nature that are not yet predictable. The recent trend towards a strengthened nuclear non-proliferation regime could be reversed if a 'rogue state' were to succeed (as Iraq almost did) in deploying an operational nuclear capability. Current efforts to strengthen the Biological Weapons Convention could fail, allowing the spread of new and dangerous capabilities. If any or all of these occur, British defence spending is likely to be significantly higher than in a more benign future. If the number of nuclear weapons states increases, and the NPT breaks apart, the case for the UK retaining a nuclear arsenal beyond 2025, even at some considerable cost, will consequently become much stronger.

Over the next decade, however, it is neither necessary nor desirable for the government to adopt a definitive position on whether or not it intends to replace Trident in 25 or 30 years time. Nor does the government have to decide now, or for some time to come, on the precise combination of circumstances which would allow it to agree to a treaty eliminating all nuclear weapons. Policy should instead be focused, for the next decade and perhaps longer, on those measures that can be taken to help the wider international process of nuclear marginalisation. The rest of this report seeks to address some of the areas in which the UK can make a particular contribution in this regard.

3. Involving Britain, France and China in the Disarmament Process

Over the last five years, the three smaller nuclear weapons states - China, France and the UK - have started to be more involved in the nuclear disarmament process. In 1992, France and China joined the NPT. In 1995, together with the US and Russia, they agreed to Principles and Objectives for Nuclear Non-Proliferation and Disarmament as part of the deal to allow indefinite extension of the NPT (see Appendix 1). In 1996, after final rounds of testing by both China and France, all three smaller nuclear powers

agreed to accede to the Comprehensive Test Ban, and to halt their own testing programmes.8

So far, however, the nuclear forces of Britain, China and France remain largely outside the scrutiny of either the NPT's safeguards (which apply primarily to non-nuclear states) or the START restrictions on the arsenals of the US and Russia. With the achievement of a test ban agreement, the time may now be appropriate to think through more carefully how the forces of the three smaller powers could become more involved in a multilateral process.

Bringing Britain, France and China into START?

If a START III agreement is ratified by the US and Russia, attention will soon turn to what will succeed it. Even 2,000 warheads apiece will constitute a massive degree of overkill compared with the requirements of 'minimum deterrence'. Moreover, the underfunded Russian armed forces will find it extremely hard to maintain even this level of strategic force in operation in the long term. As a result, it seems quite possible that, within the next 5-10 years, agreements to reduce US and Russian arsenals even further will be reached. As the world's strongest conventional military power, the US has no pressing requirement for weapons of mass destruction, except as a deterrent against their use by others. For its part, Russia is anxious to maintain nuclear parity because of the status which it believes this brings, but it is also under severe pressure to reduce the costs of doing so.

As the US and Russia continue to reduce their arsenals, pressure is likely to grow for the UK, France and China to be involved in some way in the reduction process. However, it would not be appropriate to involve them directly in START talks as long as US and Russian arsenals remain much larger than their own. For, in these circumstances, it would probably be impossible to agree on the principles on which limitations for the small power arsenals could be based.

The basic principle underlying the START talks is numerical parity. But the adoption of a similar principle in five power talks would be neither acceptable nor desirable. The US and Russia are likely to refuse to reduce immediately to the level of the three other nuclear weapons states. As a consequence, an agreement based on five-way parity would impose no effective constraints on the forces of France, the UK and China.

On the other hand, the three smaller powers are also unlikely to be willing to accept the alternative: an agreement that legitimates the permanent numerical superiority of the Big Two (perhaps modelled on the battleship limitations contained in the 1922 Washington Naval Treaty). Such disparities may not matter much in military terms, given the overkill involved in nuclear arsenals of even a few hundred warheads. But an attempt to agree differential ceilings would have the effect of drawing attention to the role of nuclear weapons as symbols of Great Power, even Superpower, status at a time when - in line with the strategy of 'marginalisation' - efforts should concentrate on

⁸ The conclusion of a Fissile Material Cut-Off Treaty remains a high priority. For further discussion, see William Walker, *second paper in the series*, ISIS, 1997.

⁹ In the Washington Treaty after World War One, the capital ship tonnage of the US and the UK (the two 'superpowers' of the day) was limited to 500,000 tons each. For Japan, the ceiling was 300,000 tons, and for France and Italy it was 175,000 tons each.

Even if the US and Russia reduce their forces to less than 500 each, it is not clear that five-power limits above zero are the most appropriate way in which to proceed. Allowing all five recognised nuclear weapon states to maintain the same size of minimum deterrent force - for example at 100 warheads each - would in principle be one option. Former NATO commander General Goodpaster, for example, has suggested that the aim should be to reduce to levels of

'100 to 200 weapons, no more, in the hands of each nuclear weapons nation - while we study whether it might be possible to rid the world of them completely.' 10

If consideration is to be given to formal limitations on nuclear arsenals for all nuclear weapon states, however, the smaller undeclared arsenals of Israel, India, and Pakistan may need to brought into the disarmament process in some way. Some commentators have estimated that Israel currently has 100+ warheads, India has 60+ warheads and Pakistan has 15-25 devices. The immediate priorities are to cap the development of these arsenals and to prevent any open declarations of nuclear status. The further that five-power reduction and confidence-building proceeds, however, the more important it will be that these three 'threshold' states are brought into the process in a more systematic way.

A Five Power Nuclear Forum

Although the time is not yet ripe for five power nuclear reduction talks, there is a need for measures to make clear that all five nuclear weapons states (NWS) take their commitments to nuclear disarmament seriously. In particular, there may be a case for the establishment of formal mechanisms for five-power talks that begin to bring the three smaller NWS into the disarmament process.

One possible venue for discussion of the next steps in the nuclear disarmament agenda would be the Conference on Disarmament. A number of non-nuclear weapon states (NNWS) have proposed that **a CD nuclear disarmament committee** be established. Inevitably, some NNWS would see such a committee as an opportunity to score propaganda points against the NWS. With a carefully-defined mandate, however, such a committee might still provide a useful forum through which the NWS could report to NNWS on the steps they are making to fulfil their Article VI commitments, as well as being a mechanism through which a broad consensus can be built around what further steps should be made to carry the process forward.¹²

Yet the value of such a forum will be limited by the size and diversity of its membership As a consequence, while it can be a valuable device to encourage greater dialogue and, perhaps, consensus-building, it would not be appropriate as a negotiating chamber. For this reason, there may also be a case for establishing a **Five Power Nuclear Forum**, in which only the five NWS are represented. Possible items for the agenda of such a Forum could include:

¹⁰ Evidence to a Senate Governmental Affairs hearing in March 1995, quoted in Union of Concerned Scientists, *The Strategic Arms Reduction Treaty (START II)*, December 1995.

¹¹ Natural Resources Defense Council, March 1997.

¹² Rebecca Johnson, 'Agenda but no work at the CD', *Disarmament Diplomacy*, February-March 1997, pp. 25-26.

Even if the US and Russia reduce their forces to less than 500 each, it is not clear that five-power limits above zero are the most appropriate way in which to proceed. Allowing all five recognised nuclear weapon states to maintain the same size of minimum deterrent force - for example at 100 warheads each - would in principle be one option. Former NATO commander General Goodpaster, for example, has suggested that the aim should be to reduce to levels of

'100 to 200 weapons, no more, in the hands of each nuclear weapons nation - while we study whether it might be possible to rid the world of them completely.' 10

If consideration is to be given to formal limitations on nuclear arsenals for all nuclear weapon states, however, the smaller undeclared arsenals of Israel, India, and Pakistan may need to brought into the disarmament process in some way. Some commentators have estimated that Israel currently has 100+ warheads, India has 60+ warheads and Pakistan has 15-25 devices. The immediate priorities are to cap the development of these arsenals and to prevent any open declarations of nuclear status. The further that five-power reduction and confidence-building proceeds, however, the more important it will be that these three 'threshold' states are brought into the process in a more systematic way.

A Five Power Nuclear Forum

Although the time is not yet ripe for five power nuclear reduction talks, there is a need for measures to make clear that all five nuclear weapons states (NWS) take their commitments to nuclear disarmament seriously. In particular, there may be a case for the establishment of formal mechanisms for five-power talks that begin to bring the three smaller NWS into the disarmament process.

One possible venue for discussion of the next steps in the nuclear disarmament agenda would be the Conference on Disarmament. A number of non-nuclear weapon states (NNWS) have proposed that **a CD nuclear disarmament committee** be established. Inevitably, some NNWS would see such a committee as an opportunity to score propaganda points against the NWS. With a carefully-defined mandate, however, such a committee might still provide a useful forum through which the NWS could report to NNWS on the steps they are making to fulfil their Article VI commitments, as well as being a mechanism through which a broad consensus can be built around what further steps should be made to carry the process forward.¹²

Yet the value of such a forum will be limited by the size and diversity of its membership As a consequence, while it can be a valuable device to encourage greater dialogue and, perhaps, consensus-building, it would not be appropriate as a negotiating chamber. For this reason, there may also be a case for establishing a **Five Power Nuclear Forum**, in which only the five NWS are represented. Possible items for the agenda of such a Forum could include:

¹⁰ Evidence to a Senate Governmental Affairs hearing in March 1995, quoted in Union of Concerned Scientists, *The Strategic Arms Reduction Treaty (START II)*, December 1995.

¹¹ Natural Resources Defense Council, March 1997.

¹² Rebecca Johnson, 'Agenda but no work at the CD', *Disarmament Diplomacy*, February-March 1997, pp. 25-26.

- * Discussions on nuclear weapons safety, including possibilities for moving forces to 'low alert' or 'zero alert' postures;
- * The establishment of mechanisms for the verification of national commitments to limit force sizes, drawing on experience and technologies developed in US / Russia negotiations;
- * Discussion of the technical problems involved in verification of a complete ban on nuclear weapons, and the commissioning of further research on the problems identified:
- * Discussions on nuclear doctrine, including the possibility of strengthening security assurances towards NNWS and towards each other.
- * Negotiation of increased transparency with regard to stocks of military fissile material, with the objective of increasing confidence that none of the NWS have hidden stocks of such material.

It will take some time for the NWS to reach agreement, even in principle, on the establishment of such a Forum. But a reasonable target would be for the NWS to agree to the establishment of a Five Power Nuclear Forum before the start of the NPT Review Conference in 2000.

A Nuclear Weapons Register

One of the items on the agenda of a Five Power Nuclear Forum on which fairly rapid progress might be possible is the establishment of a Nuclear Weapons Register. The idea of such a Register was first proposed in December 1993 by German Foreign Minister Klaus Kinkel. However, according to an account of the episode by Harald Muller, Director of Frankfurt's Peace Research Institute and an advisor to the German government, the initiative was opposed by London, Paris and Washington. As a result, attention turned to areas where agreement seemed more attainable, most notably the proposal for a Comprehensive Test Ban. But the idea has remained in circulation, and it was endorsed by Robin Cook, then Shadow Foreign Secretary and now Foreign Secretary, in April 1995.

A Register would involve all five NWS providing regular reports on their stockpiles of nuclear weapons. Although at first such reports might be provided without verification, the intention would be to establish as soon as possible mechanisms for checking the accuracy of the declarations. Considerable work has already been done in US / Russian talks on the issues involved in warhead verification, and much could be learnt from this experience. A five-power Register would enable this bilateral process to be extended to the 'threshold' states.

¹³ Harald Muller, 'Transparency in Nuclear Arms: Towards a Nuclear Weapons Register', Arms Control Today, October 1994. Also see Malcolm Chalmers, 'Transparency and the existing nuclear weapon states: The case for a Nuclear Weapons Register', Second Report of the House of Commons_Foreign Affairs Committee on UK Policy on Weapons Proliferation and Arms Control in the Post-Cold War Era, HC34-II, April 1995, pp 174-177; Sean Howard, 'Proposals for a Nuclear Weapons Register' in J. B. Poole and R. Guthrie, Verification 1996, Westview, 1996.

¹⁴ Robin Cook, op cit.

Taken in conjunction with a process of transparency and monitoring in relation to stocks of military fissile material, a verifiable Nuclear Weapons Register would aim to increase confidence that none of the participating states were concealing significant stocks of weapons or fissile materials. It would thus begin to establish the stringent frameworks for verification and monitoring that will be necessary if a complete ban on nuclear weapons is to become technically possible at some future date. Such mechanisms would still be of considerable utility even if the goal of complete disarmament is postponed in favour of that of 'minimum deterrence' at low, but agreed, levels.

As well as being a concrete indication of the NWS' willingness to meet their Article VI commitments, a Nuclear Weapons Register would also serve as a useful complement to the existing United Nations Register of Conventional Arms. It would not be appropriate to include nuclear weapons in the UN Register itself. In order to emphasise the legitimate interest of the international community as a whole in its progress, however, it would be important that the NWS provided regular reports to the UN on developments in the Five Power Nuclear Forum, and that these reports included a summary of the basic information provided to the Nuclear Weapons Register.

The commitment of the NWS to increased transparency would, in itself, help to demonstrate a genuine commitment to the long term goal of nuclear disarmament. For the US and Russia, the Register would also provide a means of drawing attention, on a regular basis, to the considerable progress that is being made in reducing their arsenals. For Britain, France and China, it would provide an opportunity of demonstrating how small, in relative terms, their arsenals were.

No-increase commitments

Direct involvement in START talks should be rejected for the time being. With the US and Russia pressing ahead with deep cuts in their own arsenals, however, it is likely to become increasingly important for China, France and the UK to demonstrate that they are exercising restraint in their own plans and programmes. The most obvious way to do so would be for all three to announce that they will not expand the size of their own nuclear arsenals while the process of US/Russian arms reduction is under way.

The chances of France doing so are reasonably good. The total number of French warheads is estimated to have fallen from around 540 in 1991-92 to 450 at the end of 1996. As remaining land-based missiles are withdrawn from service, the total arsenal is likely to fall further: perhaps to around 350 by 2005, consisting of 288 based on four new Triomphant-class submarines, together with 65 air-launched nuclear missiles on board Mirage 2000 and Super Etendard aircraft. 16

Persuading China of the merits of a commitment not to increase the size of its arsenal may be harder. China is the most secretive of the five nuclear weapons states, and there is a considerable degree of uncertainty surrounding the size of its arsenal, with the most widely quoted independent estimate suggesting an arsenal of around 400 warheads. Yet China's attitude towards arms control, and multilateralism more generally, has evolved considerably in recent years. It became an NPT signatory in

¹⁵ See Malcolm Chalmers and Owen Greene, *The UN Register in its Fourth Year*. Bradford Arms Register Studies Working Paper 2, November 1996, pp. 31-32.

¹⁶ NRDC Nuclear Notebook, Bulletin of Atomic Scientists, November / December 1996. pp. 65-66.

¹⁷ Ibid., p. 67.

1992, and agreed (unlike India) to a Comprehensive Test Ban in 1996. Given the age, vulnerability and short range of much of its current arsenal, China is unlikely to be willing to stop modernisation of its nuclear force. But it may be prepared to consider making a commitment not to increase the total size of its arsenal if the political costs of not doing so are judged to be unacceptably high. China already makes much of the fact that it is the only nuclear weapons state to have made a 'No First Use' commitment. Officials have recently been reported as stating in private meetings that China does not intend to increase its nuclear arsenal. A 'no increase' initiative, especially if backed by all four other nuclear weapons states, would strengthen those forces within China arguing for a 'minimum deterrence' posture, as well as help to restrain those in the Chinese armed forces that might, in the long run, be tempted to increase China's strategic arsenal sharply.

4. The Implications of a 'No Increase' commitment for the UK

From the time of the initial decision to purchase Trident D5 missiles as a replacement for Polaris, concern has been expressed that the UK is buying a system with capabilities well in excess of the requirements of a 'minimum deterrent' force. When it was first decided to purchase Trident in 1980-82, it was argued that the increased firepower was needed in order to overwhelm Soviet ABM defences that might be deployed in the early 21st Century. Even at the time, some analysts felt that such an argument was not entirely convincing. Today, with Soviet defence capabilities likely to be in a state of disrepair for some time and the threat of East-West war remote, such an argument is even less persuasive. As Sir Michael Quinlan has suggested:

'...it is arguable that the minimum once judged necessary to deter a huge Soviet Union, regarded as capable of massively hostile action at short notice, must surely have been more than is needed in the new circumstances, even on a prudently cautious view of what these circumstances might become over the lifetime of planned systems.'²¹

At the time of the original Trident decision, it was assumed that both superpowers would maintain strategic arsenals of 10,000 warheads each or more, and that there was a real possibility of a short-warning Soviet attack on Western Europe that might escalate into a full-scale nuclear war. Now that Trident is entering service, however, the situation is very different. The US and Russia have already agreed START III ceilings of 2,000- 2,500 warheads each, and further reductions are possible.

¹⁸ Eric Arnett, 'What threat?', Bulletin of Atomic Scientists, March/April 1997, p. 54.

¹⁹ For further discussion of China nuclear doctrine, see Alastair Iain Johnson, 'China's New 'Old Thinking': The Concept of Limited Deterrence', *International Security*, Winter 1995/6. Also see Banning N. Garrett and Bonnie S. Glaser, 'Chinese Perspectives on Nuclear Arms Control', *International Security*, Winter 1995/6.

²⁰ The UK's Trident missiles have the capability to carry up to 12 warheads per missile, or 192 warheads per boat

²¹ Michael Quinlan, 'The future of nuclear weapons: policy for Western possessors', *International Affairs*, 69, 3, 1993, p. 493.

Freezing Trident warhead numbers at the level of Polaris

The Labour Party's 1996 statement on foreign and security policy stated that

'We will ensure that Trident carries no more warheads than Polaris.'22

A similar commitment was made by the Liberal Democrats, whose 1997 manifesto stated that

'We will restrict the number of nuclear weapons on Trident to the same number as previously deployed on Polaris.'23

If the new government were to implement such a policy, it would almost certainly require an adjustment to current plans. The size of the required adjustment is, however, not clear: first, because the previous government declined to reveal the exact number of Polaris warheads that were deployed in the 1980s; second, because it also refused to reveal the number of warheads deployed on the new Trident force.

The last government revealed that the original Polaris A3 system, first deployed in 1968 but withdrawn from service in the 1980s, carried three warheads (each believed to be 200 kilotons). There is more uncertainty in relation to the number of warheads on Chevaline, deployed in service between 1982 and 1996. The Chevaline update to Polaris is known to have involved a major and complex development of the missile front-end, including the incorporation of advanced penetration aids (including decoys). At first, some reports suggested that Polaris A3TK (Chevaline) retained the three warheads of its predecessor.24 It is now more commonly assumed, however, that the inclusion of decoys left room for only two.25 The number of warheads deployed on each Polaris boat before the first Trident submarine came into service in December 1994 was therefore either 32 or 48. It is widely believed that only enough operational strategic warheads were available for deployment in three submarines. The Polaris/Chevaline force in December 1994 therefore consisted of either 96 or 144 warheads. The lower figure - 96 - is consistent with President Mitterand's March 1987 statement that Britain had 'ninety to a hundred' strategic warheads.26

The Conservative government made clear in 1993 that Trident would deploy with no more than 96 warheads per submarine, although it left open the possibility that it would field substantially fewer.27 As a consequence, when the third Trident submarine Vigilant enters service in 1998, the number of operational warheads will be no higher than 288.

²² A Fresh Start for Britain: Labour's Strategy for Britain in the Modern World. Labour Party. 1995.

²³ Make the Difference, 1997, p. 58.

²⁴ Lawrence Freedman, British and Nuclear Weapons, Macmillan, 1980, p. 49 says Chevaline 'may well involve' three warheads.

^{25 &#}x27;Why Trident?', Sunday Times, 7 April 1985. Also see Robbin Laird, 'The future of the British strategic nuclear force', Comparative Strategy, 5, 4, 1986, p. 324; SIPRI Yearbook 1995, Oxford University Press, p. 331; Stephen Pullinger, 'Memorandum submitted on the Progress of the Trident Programme', Second Report from House of Commons Defence Committee, 1993/94, HMSO, May 1994; SIPRI Yearbook 1996, Oxford University Press, 1996, pp. 616-617.

²⁶ Robert S. Norris, Andrew S. Burrows and Richard W. Fieldhouse, Nuclear Weapons Databook Volume V: British, French and Chinese Nuclear Weapons, Westview Press, 1994, p. 164.

²⁷ Malcolm Rifkind, UK Defence Strategy: A Continuing Role for Nuclear Weapons?, Centre for Defence Studies, London, 16 November 1993. Rifkind also reported in this speech that 'the total explosive power carried on each Trident submarine will not be much changed from Polaris'. In a subsequent oral statement, he confirmed 'the lower yield of each Trident warhead compared with that of Polaris. 'House of Commons Debates, 2 May 1995, column 164. This implies that Trident submarines were planned to have more warheads than Polaris.

This will be equivalent to up to three times the number of Polaris warheads deployed in November 1994 (see Table 1).

If Chevaline consisted of only 2 warheads per missile, the commitment to deploy no more warhead numbers than Polaris would mean an operational deployment of only 96 warheads (32 per submarine). If Chevaline consisted of 3 warheads, or if the 'no increase' commitment refers to the original Polaris deployment, Trident would carry no more than 144 warheads. It is therefore likely that a commitment to carry no more warheads on Trident than Polaris will involve <u>some</u> reduction in warhead numbers from those currently deployed on two boats, as well as a significant reduction in the number planned for deployment on three boats in 1998.

Table 1: The size of the UK strategic nuclear force 1994-1998

Date	Strategic warheads deployed	Number of	
· ·		loaded boats	
November 1994	96-144	3	Polaris
May 1997	up to 192	2	Trident
December 1998 (existing plans	up to 288	3	Trident
December 1998 (if no	96-144	3	Trident
increase on Polaris level)			

Two possible complicating elements have been introduced into the calculation of what constitutes 'no increase' over Polaris levels. First, it could be argued that the UK should deploy as many warheads on the strategic nuclear force as were previously deployed on the total nuclear force in the early 1990s. At that time, in addition to Polaris, the UK also possessed perhaps 100-200 WE-177 free-fall bombs. The WE-177 bombs are due to be withdrawn from service in 1998, and their 'sub-strategic' role is being taken by Trident. The full meaning of this additional Trident role is unclear, though it appears to mean that some Trident missiles will be fitted with low-yield single warheads that can be used to fire 'warning shots', possibly in response to the use of nuclear weapons by a 'rogue state' against British troops.²⁸

Yet the requirement for Trident to be able to fire a small number of 'warning shots' is unlikely to make any significant difference to the total warhead requirement. Only if the government were to seek to give Trident new war-fighting roles well beyond those of minimum deterrence would a sub-strategic role require a significant number of additional warheads. Yet such a new role would be entirely out of keeping with recent trends in NATO and UK thinking. As Defence Secretary Malcolm Rifkind made clear when announcing the new sub-strategic role for Trident, it was not the government's

²⁸ For further discussion, see David Miller, 'Britain ponders single-warhead option', *International Defense Review*, 9, 1994, pp. 45-51.

intention to develop 'a new war-fighting role for nuclear weapons.'29 A new government is unlikely to want to reverse this judgement. Provided this remains the case, there does not appear to be a strong rationale for arguing for a significant increase in strategic warhead numbers.

Explosive power

The total explosive power of the Trident force, as currently planned, will not be significantly greater than that of Polaris. It could be argued, therefore, that the 'no increase' commitment should be applied to total megatonnage rather than total warhead numbers.

Yet explosive power is not equivalent to destructive power.30 Two warheads of 100 kilotons can cause much more destruction than one warhead of 200 kilotons. In addition, it is also necessary to take into account the fact that the multiple warheads deployed on Polaris/Chevaline missiles are not independently targetable. By contrast, each Trident warhead can be assigned an entirely separate target. Destructive power is a difficult concept to operationalise. Given the increase in flexibility (and accuracy) which Trident involves, however, it may not be unreasonable, as a first approximation, to assert that, despite their lower yields, the destructive power of 32 Trident warheads may not be significantly less than the destructive power of 32 Polaris warheads.

Warheads in store

There is one development that could erode the UK's ability to maintain a minimum deterrent with a Trident force kept at or below Polaris levels: the deployment of effective defences against strategic missiles by potential target states. Such a deployment appears most unlikely in the next decade. Were such a development to take place after 2010, however, the UK would be increasingly faced with two alternatives:

- * It could accept the progressive erosion of the independent capability of its nuclear force, conceding that it would be less effective against well-defended states, except as a supplement to a US nuclear attack. This may be a perfectly acceptable option. Such a development would be viewed with equanimity by those who believe that there are never likely to be any circumstances in which the UK could sensibly use its nuclear weapons when the US is refraining from using its own.
- * Or, if this first option were not acceptable (perhaps because of a future rift in the Atlantic alliance), the Government could attempt to increase the UK force's capability to overcome missile defences. The most cost-effective way of doing so would be a matter for complex technical appraisal at the time. But many options are likely to present themselves. If Trident is still in service, one interim option in 2010-2025 might be to use its substantial 'stretch capacity' to deploy more warheads and/or advanced penetration aids onto existing missiles. Thereafter, when Trident comes to the end of its service life around 2025, it could be replaced by a system that is capable of overcoming the defences being deployed at that time: perhaps by using a delivery system other than ballistic missiles.

²⁹ Malcolm Rifkind, op cit., p. 11.

 $^{^{30}}$ For an interesting insight into this issue, see the exchange between John Home Robertson MP and Mr Thatcher, Director of Nuclear Policy, in House of Commons Defence Committee, Progress of the Trident Programme, HC297, May 1994, p. 10. Also see Memorandum submitted by Stephen Pullinger, op cit., pp 37-42.

Fortunately, it is not necessary for the UK government to confront such a choice now, and it is unlikely to have to do so for at least another decade. Yet it does illustrate the continuing interest of the UK, and of France and China, in guarding against any erosion of the ABM Treaty. The more successful that arms control can be in preventing the spread of strategic missile defences, the less problematic it will be for future governments to keep Britain's nuclear force at a level at or below that of Polaris.

Insofar as government may want to keep this second option open, however, it might be important for it to make clear that its 'no increase' commitment refers only to the total number of *deployed* warheads, rather than to the total stockpile of warheads. If the government were to limit Trident warhead numbers to 32 per boat, a significant excess stock of warheads would be created. Some of this excess could be scrapped. But there might be a case for maintaining at least some of this excess in reserve, even if only in component form. Such an approach would be consistent with the growing pressures on all nuclear weapons states to reduce the alert status of their nuclear forces as a means of increasing safety and reducing crisis instability. Yet it would also allow for the possibility that some reloading may be necessary in response to new information, for example regarding development of ballistic missile defences in potential adversary states.

Should Trident be cut to a level below that of Polaris?

Even if deployed Trident warhead numbers are limited to the number carried by Polaris, the ability of Trident warheads to be independently targeted means that this would still constitute a significant increase in targeting capability. Using targeting ability rather than warhead numbers as a criterion, therefore, one could argue that a policy of freezing the Trident force at the level of Polaris implies a nuclear force with only 16 warheads on each boat, rather than 32 or 64.

Even a force of only 16 warheads per boat would still be an awesome 'minimum deterrent'. Sixteen 100 kiloton warheads delivered with pinpoint accuracy would be enough to inflict 'unacceptable damage' on virtually any single country. Moreover, even if the second and third boats were not immediately available, they could be rapidly mobilised: providing a capability to attack a total of 48 separate targets. Such a force would be in line with the recent suggestion of Sir Ronald Mason, Chief Scientific Advisor in the British Ministry of Defence at the time of the Trident decision:

'I would drive down to what I was satisfied was a minimum deterrent - and if that exceeded 50 warheads, I would be very surprised.'31

Such a reduction would go beyond the Labour Party's stated policy commitment and is therefore unlikely to be made in the immediate future. Over time, however, it might be possible to consider further cuts in the number of deployed warheads, while maintaining significant numbers of surplus warheads in store so that they can be reloaded at relatively short notice.

³¹ Mark Urban, 'Defence chiefs call for radical Trident cuts', *Independent*, 6 August 1995.

The fourth boat

If a policy of deploying no more warheads on Trident than on Polaris were accepted, some might argue that the fourth Trident boat is surplus to requirements and could be cancelled. A parallel is often drawn in this regard with the incoming Labour government in 1964, which contributed to the package of defence spending cuts then deemed necessary by cancelling the fifth Polaris boat.

Yet the purpose of the fourth Trident boat is not to add to the total firepower - warheads and missiles - of Britain's nuclear force. If Polaris practice is followed, only enough operational warheads will be retained for deployment in three submarines. One of the four boats (presumably the one in long refit) will be unarmed.

Moreover, cancellation of the fourth Trident boat in 1997 is much less financially attractive than it would have been after the 1992 election. The fourth boat is not due to come into service until early in the next century. But, as of September 1996, only £136 million of the budget for submarines was left uncommitted (see Table 2). The savings from cancellation are therefore relatively small.

Table 2: Remaining expenditure on the Trident procurement programme (as of end September 1996) £ million

	Uncommitted	Unspent commitment	
Submarine	136	260	
Strategic weapon system	303	154	
Tactical weapon system	0	62	
Buildings/works	7	1	
Dockyards	256	2	
Warhead/miscellaneous- unallocated contingency	161	71	
TOTAL	863	550	

Source: Hansard Written Answers, 3 February 1997, Column 484.

Even with a total force of only three, one Trident submarine can usually be kept on patrol at all times.³³ During the 25 year lifetime of the system, however, some unforeseen problem - accidental or hostile - could remove one of the submarines from service. If such an accident were to occur while another submarine was undergoing a refit (a regular part of the Trident life cycle), and if the government had retained a fleet of only three boats, it would be physically very difficult to keep the one remaining boat permanently on patrol. If one is prepared to relax the assumption that constant patrol is still necessary, the need for the fourth boat diminishes. Given the small amount of money that would be saved by cancellation, however, continuation of the fourth boat is still good value-for-money even in these circumstances.

³² Hansard, 11 February 1997, column 88.

³³ See comments by Rear Admiral Richard Irwin in House of Commons Defence Committee, op cit., pp. 3-5.

Delaying a Trident replacement decision

Perhaps the most powerful argument against cancellation of the fourth boat is that it could reduce the lifetime of the Trident force as a whole. Nobody knows what technical problems the Trident submarines might encounter after 20 or 25 years of life. But relying on only three boats does increase the risk that unforeseen problems will oblige replacement decisions to be brought forward.

If Trident replacement decision-making proceeds on a timetable comparable with that for Polaris, and the boats have a comparable lifetime, the government might have to reach initial decisions on whether to plan a replacement around 2005 in order for withdrawal from service to begin in 2020.³⁴ If the lifetime of the submarine can be extended so that withdrawal from service does not begin until 2025, however, serious consideration of replacement can be postponed until around 2010.³⁵ Keeping four boats in service will help in this regard. Just as important, however, will be a recognition that, in the more benign strategic environment of the current period, the force does not have to be run at the same tempo as during the height of the Cold War.

Extending the lifetime of Trident by careful management of its operations over the next decade would save the defence budget a great deal of money. It would also have considerable political benefits by postponing the domestic controversy that has accompanied both previous replacement debates. Not least, a delay in the requirement to make initial replacement decisions from 2005 to 2010 would allow a much clearer picture to emerge of global progress towards nuclear disarmament. By 2010, it is entirely possible that the US and Russia will have agreed to reduce their own nuclear arsenals to 'minimum deterrent' levels, and that five-power talks on future reductions will be at such an advanced stage that Trident replacement will be unnecessary. Even if such a process fails to take place, a delay in making a replacement decision will still have postponed significant expense and released scarce defence resources for other priorities.

Missile and warhead numbers

Although there would be few savings from cancelling the fourth Trident boat, significant savings might still be possible from reducing the number of missiles purchased from the US. So far, the UK has purchased 44 Trident missiles, and, as Table 2 shows, £303 million of the budget for strategic weapon systems was still uncommitted as of September 1996. A further 7 missiles were ordered in November 1996. Current plans are reported to include the ordering of two further batches of 7 missiles, giving a total of 65 missiles altogether.

³⁴ The first Polaris patrol was in 1968. A committee chaired by Prime Minister Callaghan began to consider Polaris replacement in mid-1977, detailed official studies were set in train in January 1978, and the decision to buy Trident C4 to replace Polaris was announced in July 1980. Yet the first Trident submarine did not enter service until December 1994: 17 years after the initial high-level discussions.

³⁵ In March 1995, Rear-Admiral Richard Irwin suggested that 'I see nothing at the moment that would stop this system going for more than 25 years.' House of Commons Defence Committee, *Progress of the Trident Programme*, HC350, July 1995, p. 16.

³⁶ Hansard, 10 March 1997, column 65.

A decision to reduce the number of warheads deployed on Trident could make a reduction in missile numbers more feasible. For example, the number of missiles deployed on each submarine could be reduced from 16 to 12 while still retaining the option of including a mix of single-warhead 'sub-strategic' and multiple-warhead 'strategic' missiles on each boat. Indeed the second Trident boat, Victorious, was initially deployed with only 12 missiles.³⁷ If this practice is followed in all Trident boats, it may be possible to cancel plans to order the last two batches of missiles, and make do with a total purchase of 51.³⁸

Reducing total warhead numbers might itself generate some savings. Some non-operational warheads would be needed as spares and others might be retained in component form. But some might be dismantled altogether. The key consideration would be to assess the most cost-effective way for maintaining the agreed level of deployed warheads.

National Transparency

The new government could decline to reveal any more information about the UK arsenal prior to five-power agreement on a Nuclear Weapons Register or similar regime. But it might also consider whether some limited steps could be possible on a national basis. An annual declaration on the total size of the UK operational arsenal, for example, could create pressure on other nuclear weapon states to follow suit, thus helping to promote the cause of transparency even before a formal regime is established.

The UK would not be the first NWS to reveal such information. Both the US and Russia already declare the size of their arsenals of strategic delivery vehicles as part of the START process; and they are now exploring further transparency in relation to warhead numbers. In May 1994, President Mitterand announced that France possessed 492 nuclear weapons, of which 384 were on M4 submarine-launched nuclear missiles.³⁹ The French government now makes a detailed annual declaration to Parliament on the size of its strategic arsenal.⁴⁰ If the UK were also willing to make a similar declaration, therefore, China would be the only recognised NWS not to release any information on the size of its arsenal.

Current UK government practice is that it will not reveal details of warhead numbers for systems that are still in service. But it has revealed a considerable amount of other information. In 1993, the Ministry of Defence confirmed that the original Polaris submarines each entered service carrying 48 warheads, and that Chevaline did not involve any increase in the number of warheads associated with the Polaris force.⁴¹ It also stated that Trident would be deployed with no more than 96 warheads in each submarine.

³⁷ *Ibid.*, p viii; House of Commons Defence Committee, *Statement on the Defence Estimates 1996*. HC 215, July 1996, p. 106.

³⁸ In addition to 36 deployed missiles, this would allow for an operating margin (mainly for test firings) of 15. Four missiles have already been used in test firing from the first two Trident submarines.

Four missiles have already seen ased in cell ming from the four missiles have already seen ased in cell ming from the four missiles have already seen ased in cell missiles have already seen ased in cell missiles have already seen ased in cell missiles have already seen as a four missiles have already seen ased in cell missiles have already seen as a four missiles have already seen ased in cell missiles have already seen as a four missiles have a f

⁴⁰ Loi de Programmation 1997-2002, Ministiere de la Defence, 1996. I am indebted to Shaun Gregory for pointing out this reference for me.

⁴¹ Hansard, 26 January 1993, column 645.

The adoption of a 'no increase' policy for Trident compared with Polaris would mean the deployment of no more than 48 warheads, and probably no more than 32 warheads, on each submarine. At the very least, a government pursuing such a policy would presumably want to state explicitly that it was doing so. It might be willing to go further and issue a regular statement on the number of warheads actually deployed in service at any one time. Or it could announce the total size of the stockpile, including those held in store. Finally, the government could agree to permit independent verification of such statements in order to increase its confidence-building value. But such verification is probably best established through multilateral negotiations involving all nuclear weapons states, rather than on a unilateral basis.

5. Strengthening Security Assurances

As part of the package of measures designed to secure the indefinite extension of the NPT in 1995, the US, UK, France and Russia agreed a set of 'security assurances' designed to make clear to non-nuclear states that their security would not be disadvantaged by their decision to give up the nuclear option. In particular, it was agreed that the four powers would undertake never to use nuclear weapons against any non-nuclear weapon state party to the NPT, except in the case of an attack by such a state carried out or sustained in association or alliance with a nuclear weapon state.⁴² The nuclear weapons states have also signed protocols to nuclear-weapon free zone treaties covering 105 of the UN's 185 member states, pledging not to use or threaten to use a nuclear explosive device against any country party to these treaties.⁴³

The strength of the nuclear weapon states' commitment to these negative security assurances has, however, been thrown into question by the confused signals being sent by both US and UK officials with regards to whether these assurances allow nuclear weapons to be used in retaliation to the use of other weapons of mass destruction: that is, chemical and biological weapons. It is the clear intent and meaning of current security assurances that such an exception does not exist. During the Gulf War, however, US officials appeared to be using an implied threat of nuclear first use to deter Iraqi use of chemical or biological weapons. Although the Director of the Arms Control and Disarmament Agency ruled out the use of nuclear weapons against nonnuclear Irag. President Bush insisted that 'I am going to preserve all options'. Even when Bush had privately decided to rule out nuclear use, Secretary of State Baker wrote later, it was thought best to leave 'the impression that the use of chemical or biological agents by Iraq could invite tactical nuclear retaliation.' In February 1990, although both Major and Mitterand had ruled out the use of nuclear weapons, Bush continued to state that he wanted to leave Iraq with a 'fuzzy interpretation' of US policy.44

While he reaffirmed Britain's commitment to existing security assurances, Malcolm Rifkind's keynote 1993 speech on nuclear weapons policy suggested that it was now

⁴² For a full discussion, see George Bunn and Roland M. Timerbaev, 'Security Assurances to Non-Nuclear Weapon States', *The Nonproliferation Review*, Fall 1993.

⁴³ See Michael Hamel-Green, 'Nuclear-weapon-free zones', Disarmament Diplomacy, October 1996, pp. 7-9.

⁴⁴ Quoted in William Arkin, Calculated Ambiguity: Nuclear Weapons and the Gulf War', Washington Quarterly, 19, 4, 1996, pp. 3-18.

more difficult for the UK to retain its commitment than it had been in the Cold War 'when there was no appreciable risk of our facing a chemical or biological attack from any country outside the Warsaw Pact'.⁴⁵ In 1996, David Omand, the MoD's Deputy Under Secretary of State (Policy), sought explicitly to justify a policy of 'calculated ambiguity' not unlike that pursued by the US during the Gulf War:

'in case it should be argued that by giving such Security Assurances to non-nuclear weapon states we have actually increased the likelihood of rogue regimes being tempted to acquire and use biological and chemical weapons, then I would suggest that a future Saddam Hussein would be unlikely confidently to discount nuclear retaliation by a nuclear power in such circumstances; he would more naturally fear that they would be prepared to disregard their own assurances with the same cynicism he would himself display if the roles were reversed. And that such self-generated fears should always be present in the minds of tyrants seems to me to be a welcome - as well as an inevitable - fact.'46

On one level, Omand's statement is simply a statement of fact. Whatever assurances have previously been given, countries that are contemplating the large-scale use of chemical and biological weapons against the UK or its forces cannot fail to take into account the possibility of nuclear retaliation. As long as the UK possesses the capability to use nuclear weapons, such an opponent cannot be sure that its breach of one international norm (against the use of biological or chemical weapons) may not be used to justify the breach of another (the negative security assurance).⁴⁷

By casting doubt on the value of the UK's own security assurances, Omand may have hoped to add to deterrence of a 'future Saddam Hussein'. But there are pitfalls involved in basing declaratory policy primarily on the need to send messages to 'rogue' states. The government also has to consider the message sent to those non-nuclear states (the vast majority) who are not 'rogues' but who do believe that the nuclear weapons states have a responsibility to exercise restraint in the use, or the implied threat to use. nuclear weapons to protect their security. If senior UK government officials are welcoming the deterrent effect of their nuclear weapons on the possible use of chemical and biological weapons, such states may legitimately wonder if a similar argument might not also be made in order to justify using nuclear weapons to deter conventional attack by non-nuclear states. Concerns of this nature are fuelled by government policy of neither confirming nor denying (NCND) the presence of nuclear weapons in particular war zones. For example, reports of the deployment of British tactical and strategic nuclear weapons during the 1982 Falklands war have never been officially denied, despite the fact that Argentina was, and is, a non-nuclear weapons state.48

After 1998, on current plans, the UK will have no separate tactical nuclear weapon platforms, although Trident will have a sub-strategic role. The policy of NCND may,

⁴⁵ Malcolm Rifkind, op cit., p. 11.

⁴⁶ David Omand, 'Nuclear Deterrence in a Changing World: The View from a UK Perspective', *RUSI Journal*, June 1996, p. 21.

⁴⁷ The legal rationale for this could be based on the rule of 'belligerent reprisals', an old rule of customary international law that permits retaliation to an illegal act by an enemy in war. For a detailed discussion of this issue, see George Bunn, 'Expanding Nuclear Options: Is the US Negating Its Non-Use Pledges?', *Arms Control Today*, May/June 1996, p. 9. Yet, as Bunn comments, 'What purpose is served by a pledge against nuclear use if it does not apply in war?'

⁴⁸ Paul Rogers, *Sub-Strategic Trident: A Slow Burning Fuse*, London Defence Studies 34, Brassey's/ Centre for Defence Studies, 1996.

therefore, be of less relevance than in the past. If the government wants its security assurances to be taken seriously, however, it needs to make sure that all its representatives continue to make clear that nuclear weapons will not be used against a non-nuclear opponent.

Overwhelming conventional response to use of weapons of mass destruction

The credibility of such an assurance would be greatly enhanced if the UK and its allies were clear what measures they would take if a hostile state were to use biological or chemical weapons on a significant scale against British troops or British civilians. Even if such an action involved a massive loss of civilian life, there could be no moral justification for retaliating by launching a nuclear attack on enemy cities that would be bound to involve massive loss of civilian life. The wider ramifications of using nuclear weapons in war are unpredictable, but likely to be enormous. By breaking the taboo on nuclear use that has lasted since 1945, the UK would be risking not only its own reputation but also the very fabric of international society.

Perhaps most tellingly, however, the use of British or American nuclear weapons against a 'rogue state' - even in response to first use of nuclear weapons by the state in question - would be quite unnecessary. Given the overwhelming superiority of Western conventional forces over those of any current, or likely, 'rogue state', it will always be possible to respond by a policy of (a) invasion and occupation of the country in question; (b) bringing the leaders responsible for ordering the use of weapons of mass destruction to trial for war crimes.

It may have been this threat, as much as that of nuclear retaliation, that deterred Iraq from using biological weapons in the Gulf War. According to the transcript of the crucial Baker / Aziz meeting on the eve of the war, Baker stated that 'This is not a threat but a pledge that if there is any use of such weapons (NBC), our objective [would not only be] the liberation of Kuwait, but also the toppling of the present regime.'49

If the US and its allies had been forced to deliver on this pledge, the costs could have been considerable, both in lives lost in 'advancing to Baghdad' and in the subsequent period of occupation and reconstruction. But these costs would have been worth incurring. The option of nuclear retaliation would have been avoided, along with all the potentially disastrous consequences for international order of such a step. It would also have helped to strengthen international norms against the use of weapons of mass destruction, by making clear that the Western powers have the will and capability to punish those responsible for such a step.

A clearer commitment to the removal and punishment of those responsible for the use of weapons of mass destruction would not only be an appropriate deterrent to use of chemical and biological weapons, helping to strengthen the Chemical Weapons Convention and the Biological Weapons Convention. It would also, in the longer term, be an important element in making a Nuclear Weapons Convention possible. Even if all five nuclear weapon and three 'threshold' states agree to total nuclear disarmament, and put in place stringent verification mechanisms, there will still be some possibility

⁴⁹ William Arkin, op cit., p. 5.

that a state may covertly build a small nuclear arsenal and attempt to use it for political advantage.⁵⁰ A demonstrated willingness by the world's leading military powers to punish those responsible for such threats using purely non-nuclear means could therefore help to strengthen security in a non-nuclear world.

The threat of defeat and occupation would not be a credible one against a state with forces that could repel a full-scale conventional assault by the major Western powers, possibly using weapons of mass destruction to do so. But no such state currently exists, or is likely to exist in the near future. As a consequence, the UK and its allies could considerably strengthen international norms against weapons of mass destruction by giving the positive security assurance that the use of weapons of mass destruction by any state would be treated as a crime against humanity, bringing the whole weight of Western conventional military power against the regime concerned. If such a policy had been in place in the early 1980s, it is doubtful if Saddam Hussein would have dared to have used chemical weapons extensively against Iran and then against his own Kurdish population.

Such a proposal would require Western powers to take on a greater responsibility for intervening in conflicts in which they may not have a direct interest. A parallel can be drawn in this respect with the widespread recognition that the international community has a duty to defend the principle that no state should seek to change the borders of another, or to annex it, by force. If the international community is serious about creating a world in which weapons of mass destruction are effectively outlawed, it will need to respond vigorously to any breaches of this norm. It would rarely be appropriate to use military force in response to the *possession* of such weapons (such an option was fortunately rejected by the US during the Korean crisis of 1994). But the *use* of such weapons would be a quite different matter, requiring a much more immediate and forceful response.

A No First Use agreement?

A further issue to address in relation to security assurances is the possibility of moving towards a policy of No First Use of nuclear weapons. This is in line with the Canberra Commission's support for 'agreement amongst the nuclear weapon states of reciprocal no first use.'51 The Labour Party's 1996 policy statement also proposed that existing security assurances should be strengthened by 'a negotiated, multilateral no first use agreement amongst the nuclear weapons states'.

Such an agreement would be consistent with the goal of progressively marginalising the role of nuclear weapons. But it is probably not a priority for international negotiations at this stage. The NWS have already made No First Use commitments with regards to non-nuclear weapon states. The main effect of such an agreement for the UK would therefore be a commitment not to use nuclear weapons first against Russia. Even if Russia can be persuaded to reverse its current opposition to No First Use, it is unclear how much significance can be attached to declarations that can be altered at a moment's notice. Rather than seeking further formal declarations, therefore, it may be more important to continue to support the trend within NATO for nuclear weapons to be confined to a 'last resort' role.

 $^{^{50}}$ Given the ease with which biological weapons can be constructed, it is perhaps even more important to develop a norm of forceful response to large-scale use of these weapons.

⁵¹ Canberra Commission on the Elimination of Nuclear Weapons, Executive Summary. August 1996, p. 11.

Changing NATO doctrine

The last seven years have already seen a marked shift in NATO policy towards a 'last resort' posture. Tactical nuclear weapons have been cut to less than 2% of their level of a decade ago. No nuclear weapons are stationed in several existing NATO members (such as Denmark, Norway and Spain), and the US has made clear it has no plans to deploy nuclear weapons in NATO's new members in Central and Eastern Europe.

There is a strong case for moving towards a NATO No First Use policy. Many distinguished former senior American officials have contended that the US had such a policy in reality throughout the Cold War. And the growing size of NATO's advantage over Russia in conventional forces further strengthens the case for such a policy.

On the other hand, making a policy of No First Use *de jure* as well as *de facto* could have profound symbolic ramifications. NATO's nuclear weapon states will need to be especially sensitive to the views of non-nuclear NATO members (such as Germany and Italy) who may see a commitment to No First Use as, in some sense, constituting a dilution of the US nuclear guarantee in a time of continuing uncertainty over the future of European security.

As part of the 1993-1994 Nuclear Posture Review, the US is reported to have considered removing all nuclear weapons from overseas bases (nuclear weapons were removed from South Korea in 1992). Apparently because of European opposition, however, a small number of warheads (perhaps around 100) was left in place. As an illustration of the political importance of this deployment (and perhaps also its military irrelevance), the weapons are thought to be dispersed between seven of NATO's members: Britain, Germany, the Netherlands, Belgium, Italy, Greece and Turkey. Many of these weapons are allocated for use by non-nuclear weapon states - such as Germany and Italy - on a 'dual key' basis whereby the warheads are kept by the US. It is clearly anomalous that countries designated as non-nuclear weapon states in the NPT continue to allocate aircraft, and train pilots, for nuclear roles. But the decision as to whether, and how, to address this issue is one that is best left to the countries concerned. The logic of the disarmament process is that, at some stage, all tactical nuclear weapons should be withdrawn from service. But, with respect to these particular weapons, the nuclear weapon states need to be sensitive to the concerns of their non-nuclear allies.

A national No First Use declaration?

Britain has already committed itself to No First Use of nuclear weapons against non-nuclear weapon states (except when allied to other nuclear weapon states), and this commitment should be maintained. Moreover it is hard to imagine any circumstances in which Britain would be faced with the possibility of First Use against a nuclear weapons state (with a Russian invasion of Western Europe perhaps the least implausible scenario).

It would not be appropriate, however, for the UK to make a No First Use declaration on a unilateral basis. However reasonable No First Use might be as a statement of how a responsible British leader should behave in practice, its adoption as declaratory policy is fraught with difficulties. It would threaten to create a serious rift between the UK, the US and France, damaging prospects for co-operation on other aspects of the

disarmament agenda, and leaving the UK as one of only two NWS (the other being China) supporting such a policy. Domestically, a unilateral No First Use declaration would leave the Prime Minister open to a series of 'would you press the button?' questions from political opponents designed to demonstrate a preference for surrender in some hypothetical scenario. Even if there were some international benefits from such a declaration, therefore, they would have to be balanced against the damage that it could do to efforts to sustain a broad consensus in support of the government's disarmament policy as a whole.

6. Releasing the Hair-Trigger

With the end of the Cold War, concerns relating to the possibility of accidental use have increased sharply. Russia's armed forces are in disarray and its President may not always be of sound mind. Yet it still possesses thousands of missiles on hair-trigger alert. When President Yeltsin's nuclear suitcase sounded an alert on January 25, 1995 (in response to a meteorological research rocket fired by Norway), he had four minutes to decide if it was an American attempt to blind Russia's increasingly weak defences.52 In February 1997, Defence Minister Rodionov warned that

'Today, no one can guarantee the reliability of our control systems... if the shortage of funds persists, the system [of nuclear command and control] could fall apart.... Russia may soon approach a threshold beyond which its missiles and nuclear systems become uncontrollable.'53

The alarm felt at such a possibility is such that many prominent experts are suggesting that the highest priority in nuclear disarmament discussions should now be given, not to reducing the size of stockpiles, but to pulling forces back from hair-trigger alert. As General Lee Butler, until recently Head of the US Strategic Air Command and a member of the Canberra Commission, has argued:

'Why is it that five years after removing bombers, the most stable element of the nuclear triad, from alert, we keep missiles - with their 30-minute flight time - on hair-trigger postures? What can justify this continuing exposure to operational and logistical risks? What could be more corrosive to building and sustaining security relationships built on trust?'54

Such ideas are finding increasing support internationally. Proposals for taking nuclear forces off alert, and separating warheads from missiles, were central to the report of the Canberra Commission, established by the Australian government and reporting to the UN in 1996. They were also the subject of a proposal made by the Swedish government in March 1997.55

The issue of alert status is an area where there is an evident need for rapid international agreement, especially in light of the risks of further deterioration in the reliability of Russian command and control systems. The main focus must be US

⁵² Tom Zimmermann, 'Hair-trigger for nuclear war needs to be removed', US News and World Report, 7 February 1997. Also see Bruce Blair, Global Zero Alert for Nuclear Forces, Brookings Institution, 1995 for a detailed discussion of Russian mechanisms for command and control of nuclear weapons.

⁵³ Disarmament Diplomacy, February-March 1997, p. 48.

⁵⁴ George Lee Butler, 'Time to end the age of nukes', Bulletin of Atomic Scientists, March/April 1997, p. 36. For a detailed analysis of ideas for 'zero alert', see Bruce Blair, Zero Alert, Brookings Institution, 1996.

⁵⁵ Disarmament Diplomacy, February-March 1997, p. 29.

Russian. But the UK needs to stand ready to contribute to such a process where necessary. In addition, a new government will want to review whether an appropriate balance is being struck between safety and usability in Britain's own nuclear forces. Inevitably, there is a trade-off between the need to be able to use weapons in extreme circumstances and the need to ensure that the same weapons can never be used without proper political authorisation. The end of the Cold War should have enabled the emphasis to be placed much more strongly on safety. Whether such a change has taken place, however, is not clear from the open literature.

One of the issues that should be considered in such a review is whether it is still necessary to maintain the requirement that one boat is on patrol at all times. Can the warning time of attack be lengthened, and with it the need to keep one submarine always at sea, with all the costs that this involves?⁵⁶ It would be important not to create a situation in which sending Trident to sea was seen as a provocative act. Such a review is therefore unlikely to conclude that Trident should never go on patrol. But there may be some potential for relaxing the assumptions on patrols without adverse effects on crisis stability. Such a review might have the additional, and welcome, effect of helping to make significant savings in Trident operating costs, currently estimated at some £6 billion over the life of the system,⁵⁷ as well as postponing the day when a replacement decision has to be made.

7. Conclusion

The wind-down of the massive nuclear weapon complexes built up through 45 years of Cold War has begun. Since the early 1990s, considerable progress has been made in cutting the level of global nuclear arsenals, in reducing the role of nuclear weapons in military planning, and in persuading the five nuclear weapons states to begin to take seriously their disarmament commitments in the NPT. The UK government has contributed to this process by unilaterally scrapping its tactical nuclear capability, agreeing to a comprehensive test ban and supporting a treaty banning the production of fissile material for military purposes.

In part because of these initiatives, the three major political parties are closer to each other on nuclear weapons policy than they were in the past. Nevertheless, the election of a new government provides an opportunity for a fresh attempt to add new momentum to the disarmament process. Amongst the measures which this paper has suggested in this regard are: a 'no increase' commitment by the three smaller nuclear weapons states; the establishment of a Five Power Nuclear Forum and a Nuclear Weapons Register; and new 'positive security assurances' that further strengthen the norm against the use of weapons of mass destruction.

⁵⁶ Michael Quinlan, 'The future of nuclear weapons: policy for Western possessors', *International Affairs*, 69, 3, 1993, p. 493.

⁵⁷ Hansard Written Answers, 24 February 1997, column 118.

Appendix 1: NPT commitments of the nuclear weapon states

The Treaty on the Non-Proliferation of Nuclear Weapons 1968, Article VI

Each of the Parties to the Treaty undertakes to pursue negotiations in good faith on effective measures relating to the cessation of the nuclear arms race at an early date and to nuclear disarmament, and on a treaty on general and complete disarmament under strict and effective international control.

The NPT Review and Extension Conference 1995: Principles and Objectives for Nuclear Non-Proliferation and Disarmament

... Reiterating the ultimate goal of the complete elimination of nuclear weapons and a treaty on general and complete disarmament under strict and effective international control....

The Conference affirms the need to move with determination towards the full realization and effective implementation of the provisions of the Treaty, and accordingly adopts the following principles and objectives:

... Nuclear disarmament

... the nuclear-weapon States reaffirm their commitment, as stated in Article VI, to pursue in good faith negotiations on effective measures relating to nuclear disarmament.

The achievement of the following measures is important to the full realization and effective implementation of article VI, including the programme of action as reflected below:

- A. The completion ... of the negotiations on a universal and internationally and effectively verifiable Comprehensive Test Ban Treaty no later than 1996.
- B. The immediate commencement and early conclusion on a non-discriminatory and universally applicable convention banning the production of fissile material for nuclear weapons ...
- C. The determined pursuit by the nuclear-weapon States of systematic and progressive efforts to reduce nuclear weapons globally, with the ultimate goals of eliminating those weapons, and by all States of general and complete disarmament under strict and effective international control.

Appendix 2: Labour Party policy on nuclear weapons

'... In government, arms control and disarmament will comprise a crucial element of our security policy.

Labour is committed to a nuclear weapons free world. In government, we will actively pursue further measures of mutual, balanced and verifiable reduction in nuclear weapons world-wide. Labour acknowledges the changed climate following the end of the Cold War, which has opened up real opportunities for multilateral disarmament. Labour is determined that Britain plays a full part in this multilateral process. We will retain the British nuclear deterrent. When satisfied with verified progress towards our goal of the global elimination of nuclear weapons, we will ensure British nuclear weapons are included in such negotiations.

We welcome the indefinite extension of the nuclear Non-Proliferation Treaty and we will press for stronger measures to enforce the international non-proliferation regime. In particular, we want to see major reforms to the system of IAEA safeguards, particularly the conducting of frequent challenge inspections. We also want to see a new commitment to transparency by the nuclear weapons states. As a starting point, the nuclear weapons states should declare their existing inventories of plutonium and highly enriched uranium to the IAEA and open to inspection their nuclear production facilities.

Labour in government will work for

- * a freeze on nuclear warhead numbers. As a first step, we will ensure that Trident carries no more warheads than Polaris.
- * an internationally verifiable Comprehensive Test Ban Treaty and a negotiated Fissile Material Cut-Off Convention.
- * a negotiated, multilateral no first use agreement amongst the nuclear weapons states and strengthened security assurances to non-nuclear weapon states in the form of an international legally-binding treaty.'

A Fresh Start for Britain: Labour's Strategy for Britain in the Modern World, Labour Party, 1996.

Appendix 3: Statement by Robin Cook, Shadow Foreign Secretary, on the eye of 1995 NPT Extension Conference

'The greatest failure of the NPT lies at the door not of the many non-nuclear weapons states who signed up to it, but of the declared nuclear weapons states. Article VI obliges these countries 'to pursue negotiations on good faith' to achieve nuclear disarmament.

.. At New York, those countries that have renounced nuclear weapons under the NPT will be asking the nuclear weapons states exactly what they have done to fulfil their commitment under Article VI. Nobody will have greater difficulty answering that question than our own conservative government, which is currently enhancing Britain's strategic nuclear capability. Whereas each Polaris submarine carries 16 missiles with up to three strategic nuclear warheads on each, the Trident submarines that are replacing them carry 16 warheads with up to six warheads on each. And whereas Polaris can only hit one target per missile, Trident warheads are capable of hitting separate targets. The arithmetic result is that Britain is in the process of acquiring twice as many warheads, capable of hitting six times as many targets. At New York, countries without nuclear weapons, but with legal minds, are likely to complain that far from meeting its obligations under Article VI, Britain appears to be galloping in the opposite direction.

Once again, Britain looks like passing up an opportunity to take a leading role at an international gathering on a world issue in which we have a leading interest. The tragedy is that there are many measures, both practical and symbolic, that Britain could put before the review conference to ensure that the NPT succeeds in fulfilling all its objectives.

That is why, on the eve of the conference, I am publishing the ten-point programme that a Labour government would have taken to New York:

1. A freeze on nuclear warhead numbers

As a first step, Britain should announce that it will deploy no more warheads on Trident than are currently deployed on Polaris.

2. Agreement on a CTBT

3. A nuclear weapons register

The nuclear weapons states should declare their holdings on a verifiable Nuclear Weapons Register under the auspices of the United Nations. A proposal to establish a Nuclear Weapons Register was made by Germany as part of its non-proliferation initiative, but has been resolutely opposed by the British Conservatives.

4. A fissile material production cut-off

Rapid progress should be made on President Clinton's proposal for a multilateral convention prohibiting the production of highly enriched uranium or plutonium for nuclear weapons purposes or outside international safeguards.

5. New controls on existing fissile materials

A new international regime controlling fissile materials should be established to quantify, secure and, where possible, reduce existing stockpiles. The large quantities of surplus fissile materials being released as a result of disarmament treaties and the break-up of the Soviet Union must be safeguarded and managed.

6. A new commitment to transparency by the nuclear weapons states

Confidence-building requires transparency and verification. As a starting point, the nuclear weapons states should declare their existing inventories of plutonium and highly enriched uranium to the IAEA, and open to inspection their nuclear production facilities.

7. Improved security assurances

Labour has never accepted that the use of nuclear weapons against a non-nuclear weapons state could ever constitute a legitimate or rational act. The nuclear weapons states should jointly provide a new package of security assurances, including a commitment to 'no first use'.

8. Respect for nuclear weapons-free zones

Regional nuclear weapons-free zones established by international agreement should be respected by the nuclear weapons states in peacetime. ... Our security interests are served by encouraging their development, not flouting them.

9. Regular disarmament reports to the United Nations

In order to sustain the momentum for disarmament, each of the nuclear weapons states should be obliged to lodge regular reports with the UN Secretary-General outlining what steps they have taken to fulfil their obligations under Article VI.

10. Negotiation of a nuclear weapons convention

Standing negotiations should be opened with the ultimate objective of securing a convention banning the production and possession of nuclear weapons on the same lines as the recent international convention on chemical weapons. While not underestimating the enormity of the task and the long timescale it would require, such a forum could have a powerful symbolic role in establishing the elimination of nuclear weapons as the goal of diplomatic negotiations.

Robin Cook, 'Bombs away', New Statesman and Society, 14 April 1995.

Appendix 4: Liberal Democrat Party policy on nuclear weapons

'The UK is already committed to a world free of chemical and biological weapons. Unfortunately, similar principles do not yet apply to nuclear weapons. Britain's position is based on the principles that nuclear weapons deter aggression by potentially unfriendly states and that the possession of nuclear weapons should be restricted to the five original nuclear weapons states ... Liberal Democrats do not share this approach; we call for further negotiations to reduce and if possible eliminate holdings of nuclear weapons by the give recognised nuclear weapons states.

... While other states possess nuclear weapons, however, Britain should continue to deploy a minimal nuclear force. Our underlying principle is that its threat of use must accord, as far as possible, with customary international law. The only possible way in which this criterion can be satisfied is in self-defence as a deterrent against the use or threat of use of nuclear weapons. In that case, the use must always be proportional and not directed at civilian targets.

Only if the nuclear weapon states proclaim that nuclear weapons have no military value (except in the last resort as a deterrent against nuclear attack) can they expect the non-nuclear weapon-states party to the NPT to continue with that status in an extended treaty...

As long as Britain possesses nuclear weapons, therefore, we believe that their deterrent purpose should be strategically as a weapon of last resort against nuclear attack, and sub-strategically to protect British or WEU/NATO forces from nuclear attack.

...Given the current international climate, however, the Trident force can function at a lower level of readiness than the present Government plans.

The four Trident submarines, therefore, should not be equipped, when deployed, with a greater number of warheads than at present are deployed on Polaris, however many that may be... Given the international situation, and also the accuracy and capability of Trident, whether even the present level of capability will still be needed to assure the security of the UK should also be open to review. It may well be possible that an appropriate level of minimum deterrence can be provided with a reduction below even the number of warheads currently deployed on Polaris...

We further believe that the number of warheads deployed should be stated explicitly and be open to independent verification. The Government's refusal to do this damages the cause of non-proliferation. We support the German proposal for a Nuclear Weapons Register as an extension of the United Nations Register of Conventional Arms.

Shared Security, Liberal Democratic Party, 1994.

ISIS Briefing Papers Available (since June 1994)

- No.42: The Dilemmas of an Independent Macedonia, Dr. John Allcock, June 1994.
- No.43: Verification of the Biological Weapons Convention, Dr. Graham Pearson, June 1994.
- No.44: UN Peacekeeping: the Art of the Possible, Gen. Sir David Ramsbotham, October 1994.
- No.45: European Defence Technology in Transition: Issues for the UK, Prof. Philip Gummett and Dr. Josephine Anne Stein, January 1995.
- No.46: RAF Training: Preparing for war in the 1990s, Malcolm Spaven, March 1995.
- No.47: Stability and Security in East-Central Europe, Dr. Andrew Cottey, March 1995.
- No.48: Aspects of the Chemical Weapons Bill, Nicholas A. Sims and Julian Perry Robinson, November 1995.
- No.49. French Nuclear Testing, Dr. Nadine Gurr, February 1996.
- No.50. France and Military Satellites: Implications for European Security, Dr. Shaun Gregory, March 1996.
- No.51. The Inhumane Weapons Convention and the 1995/96 Review Conference, Ann Peters, May 1996.
- No.52. Do Anti-Personnel Mines still have a Military Utility?, Dr. Chris Smith, May 1996.
- No.53. Gauging the Readiness of Britain's Armed Forces, David Yates, May 1996.
- No.54. Deliberate Disease: Why Biological Warfare is a Real Concern, Dr. Graham Pearson, June 1996.
- No.55. Multinational Peacekeeping: Issues for the UK, David Yates, July 1996.
- No.56. Avoiding Nuclear Anarchy, Prof. Graham T. Allison et.al., October 1996.
- No.57. The Re-Structuring of Europe's Armed Forces, David Yates, October 1996.
- No.58. The Security and Defence Dimension of the IGC: The State of the Debate, Catriona Gourlay, October 1996.
- No.59. Towards a Stronger Biological and Toxin Weapons Convention, Dr. Graham Pearson, November 1996.
- No.60. Nuclear Power: Ten Years After Chernobyl, David R. Marples, et. al., December 1996.
- No.61. Ballistic Missile Defence in Perspective, eds. Joseph Cirincione et. al., January 1997.
- No.62. A Review of the Canberra Commission Report on the Elimination of Nuclear Weapons, William Gatward, February 1997.

Special Nuclear Proliferation Papers:

- Paper I: Unblithe Spirit: The Political Pathology of British Non-Proliferation Policy, John Gordon, March 1995.
- Paper II: *The Context of Nuclear Non-Proliferation Policy*, Prof. John Ziman and Ronald Higgins, March 1995.
- Paper III: The Critical Agenda, Dr. Stephen Pullinger, March 1995.
- Paper IV: Britain and the NPT Review and Extension Conference, John Gordon and Dr. Stephen Pullinger, April 1995.
- Paper V: The Future Nuclear Agenda?, Owen Greene and Dr. Stephen Pullinger, October 1995.