Secrecy and dependence: The UK Trident system in the 21st century

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BASIC Research Report, Number 2001.3, November 2001

BASIC

British American Security
Information Council

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Executive Summary

It should now be obvious to everyone that people who have the fanaticism and capability to fly an airliner laden with passengers and fuel into a skyscraper will not be deterred by human decency from deploying chemical or biological weapons, missiles or nuclear weapons or other forms of mass destruction if these are available to them. We must therefore redouble our efforts to stop the proli-feration and the availability of such weapons.
Secretary of state for foreign and commonwealth affairs, the Rt. Hon. Jack Straw MP, speaking in the House of Commons, 14 September 2001

Following the terrorist attacks on New York and Washington on 11 September, urgent action is needed to renew international efforts to prevent the proliferation of nuclear, chemical and biological weapons. Tackling the threat posed by transnational terrorism will require a fresh review of UK defence and foreign policy. In the past the UK and its NATO allies have viewed nuclear weapons as providing the 'ultimate guarantee' of security.

However, the terrorists who carried out the attacks on the United States were clearly undeterred by Western nuclear forces, and it is difficult to see how nuclear weapons could be used in the current (or any) war against terrorism.

Labour's second term in office will cover a critical period for the future of the international regimes controlling nuclear weapons. The next nuclear Non-Proliferation Treaty (NPT) review conference will be held in 2005. The UK Government is strongly committed to the NPT, but if the nuclear non-proliferation regime is to be made more robust, progress must be made over the next four years to implement the commitments to move toward disarmament made at the 2000 NPT Review Conference. This report highlights some of the key nuclear policy questions that will need to be addressed during Labour's second term. What is the likely impact of the Bush Administration's nuclear policies on Britain's highly US-dependent nuclear forces? Should Trident be replaced in the future or entered into multilateral disarmament negotiations? Should the service life of Trident be extended, or could Trident submarines be converted to become conventionally armed submarines in the future? Can nuclear weapons be used as a deterrent to proliferators? In light of recent challenges in the courts, is British nuclear policy legal?

British nuclear policy under Labour (1997–2001)

Trident is now the UK's only nuclear weapon system and is expected to remain in service for approximately 30 years. Following the 1997 election, the new Labour government conducted a Strategic Defence Review (SDR), based on the premise that circumstances had changed dramatically since Trident was ordered. However, changes to Britain's nuclear policy and posture since 1997 have been fairly cautious: the number of Trident warheads deployed has been reduced from 60 to 48 warheads per submarine; and the number of Trident II missiles procured has been reduced from 65 to 58 missiles. The biggest change in Labour Party thinking on nuclear policy has been the abandonment of a 'No-first-use' policy. This was discussed before Labour came into power, but was quietly dropped after the 1997 election. Similarly, although committed to strengthening security assurances to non-nuclear weapon states while in opposition, the Labour Government has signalled that the use of nuclear weapons to deter chemical or biological threats has not been ruled out, following the US policy of 'deliberate ambiguity'. The so-called 'sub-strategic' role for Trident has been mainly linked with deterrence of chemical and biological threats.

In addition, access to information and parliamentary scrutiny of nuclear policy is now more difficult than it was under the Major and Thatcher governments. Abandoning the annual defence estimates in 1997, the UK Government now publishes a limited range of less comprehensive and ad hoc documents. With major changes now taking place in US nuclear policy, and significant developments at Aldermaston concerning the future of the UK's nuclear force, it is imperative that regular and detailed Government reporting to Parliament, together with effective parliamentary scrutiny, are restored.

British nuclear policy: secrecy and dependence

British nuclear policy is closely intertwined with that of the United States on many levels. For example, there is a high level of co-operation between the US nuclear weapons laboratories and Britain's Atomic Weapons Establishment on stockpile stewardship and management of the Trident warhead. This is seen as essential for maintaining the ability to replace Trident in the future.

Moreover, in recent years, contact between personnel working on the respective UK and US nuclear weapons programmes appears to have increased dramatically. In addition, Britain's Trident submarines use US Trident II D5 missiles produced and serviced in the United States, and held at the Kings Bay Submarine Base in Georgia. The British Trident submarines also conduct missile test firings at the US Eastern Test Range, off the coast of Florida. In operational terms, British Trident submarine patrols are closely coordinated with US Trident patrols.

Courting trouble

In July 1996, in a landmark ruling the International Court of Justice (ICJ) gave an advisory opinion on the "Legality of the Threat or Use of Nuclear Weapons" following a request from the UN General Assembly. The Court was unanimous that "there exists an obligation to pursue in good faith and bring to a conclusion negotiations leading to nuclear disarmament in all its aspects under strict and effective international control". The Court also ruled that any use of nuclear weapons would "generally contravene" the principles and rules of humanitarian law. Following the ICJ Ruling, the legality of British nuclear policy has been challenged in the British courts and through non-violent actions against the Trident programme.

The impact of Bush Administration policies

The current Republican administration is planning to radically alter the size, composition and the role of its nuclear arsenal, a shift that it likely to impact heavily on UK nuclear

policy. Some of these emerging strategies, including projected deep cuts in its nuclear arsenal, offer the UK Government an opportunity to dramatically advance the cause of nuclear disarmament. Radical cuts in the US arsenal announced by President George W. Bush in November 2001 are likely to place pressure on the UK Government – which has long argued that it maintains the minimum nuclear arsenal concurrent with its own defence needs – to re-evaluate its own force composition. It would also present the UK Government with an ideal opportunity to broaden and institutionalise the process, possibly endorsing five power nuclear disarmament talks suggested by Russia and supported by France.

The disintegration of multilateral arms control

In the wake of Bush's presidential victory, a unilateralist, 'America First' ideology has taken hold in the White House, which is shaped by two dominant themes: a strong opposition to international treaties and a desire to maintain the US position as the dominant world superpower. These two pressures are driving US arms control policy in a way that indicates a direct collision course with UK priorities. The deep-seated opposition to international agreements, a hallmark of Republican thinking in the past, has become even more entrenched in recent years. The Bush administration has repeatedly either refused to join international agreements, or watered them down to fit its own purpose.

These policies challenge the existing 'treaty-based' framework of international arms control and conflict directly with the Labour Government's stated policy commitments. Ongoing speculation that Washington may attempt to precipitate the collapse of the Comprehensive Test Ban Treaty (CTBT), along with a lack of movement in the commitments made at the 2000 NPT review conference, pose grave threats to global nuclear non-proliferation and disarmament efforts. If Britain is to ensure the survival of these hard won treaties and fulfil its own disarmament commitments, the UK Government should exert its influence and urge the United States to adopt a more progressive line.

A more aggressive US nuclear posture

The US nuclear posture includes both the option of nuclear first use and the targeting of non-nuclear weapon states. A number of recent reports indicate that the United States is considering options designed to expand the range of missions for its nuclear arsenal. In particular, influential planners are advocating the use of nuclear warheads for tackling hardened, deeply buried targets, and widely dispersed mobile missile launchers. A range of new, low-yield 'mini-nukes' are being discussed as the best means of fulfilling these roles, and their development could involve a resumption of nuclear testing. In addition, the debate regarding the response to the 11 September terrorist attacks has highlighted the question of whether the Pentagon would contemplate the use of nuclear weapons to deter or respond to threats or attacks from terrorists or 'rogue states' using chemical or biological weapons. Washington has long maintained a policy of deliberate ambiguity over the targeting of non-nuclear weapons states. An open declaration that it reserves the right to retaliate with nuclear weapons in such circumstances would signify a significant change in policy.

In the past, NATO and the United Kingdom have generally replicated changes in US posture in their own nuclear policies. At a time when the legality of its nuclear deterrent is being increasingly questioned, the Labour Government can ill-afford to be forced into signing up to a more aggressive targeting posture.

The future of Trident

The United States is currently engaged in a number of programmes designed to extend, improve or, in some cases, radically alter the capabilities of its Trident fleet. These programmes include enhancing the capabilities of the Trident missile, improving the

effectiveness of the Trident warhead, extending the lifespan of the system as a whole and beginning work on converting at least two submarines to conventional use. Given the close cooperation between the US and UK Governments on all aspects of the Trident programme, it is highly likely that the UK Government could also choose to become involved in any, or all, of these programmes. The UK Government continues to assert that its Trident programme is intended to have a service life of approximately 30 years. However, if Aldermaston is already considering the future of the Trident warhead, any US initiated programme to extend the service life of submarines would be of great interest, as would plans for an eventual replacement. Initial British Government thinking on a replacement for Trident may already be underway. Given the potential costs involved with life extension, refurbishment and replacement programmes for nuclear weapons, and the UK Government's past record in concealing these developments from democratic scrutiny, the Defence Select Committee's request for a restatement of Government policy on nuclear weapons is extremely timely.

Conclusions

In the aftermath of the terrorist attacks in Washington and New York, Britain's global responsibility to contribute to efforts to prevent proliferation of nuclear, chemical and biological weapons and their delivery systems has never been more pressing. In recent months, Britain's non-proliferation efforts have been seriously undermined by the Bush Administration's rejection of key aspects of international arms control. If Britain is to redouble its efforts to stop the proliferation and availability of weapons of mass destruction, it must now use its special relationship with the United States to impress upon the Bush Administration the need for international engagement on these issues.

In the coming years, the UK Government will have to address the questions of whether to replace Trident, embark on a programme to extend the life of the system, or phase Trident out, either by engaging in international disarmament negotiations or, perhaps by converting the submarines to conventional use. Given the weight of these decisions, parliamentary scrutiny of British nuclear weapons policy and British policy on weapons of mass destruction will be crucial.

Recommendations

1. **The UK Government should implement the 2000 NPT Nuclear Disarmament Plan of Action.**
   Successive British governments have regarded the NPT as the 'cornerstone' of international efforts to prevent nuclear proliferation. Since 1997, the UK Government has used NPT PrepComs as an opportunity to report on its progress in the field of nuclear non-proliferation and disarmament. Britain should now take the initiative to strengthen the NPT by preparing its own programme of action to implement the 2000 NPT Nuclear Disarmament Plan.
2. **Britain should lead international efforts to bring the CTBT into force**.
   Britain must keep up the pressure on all 13 countries that have failed to sign and/or ratify the CTBT. In particular, it must use its special relationship with the United States to impress upon the Bush administration the importance of ratifying the CTBT and that any deal with China to resume nuclear testing would be unacceptable to the international community.
3. **Britain should respond positively to President Putin's proposal for five-power talks on nuclear disarmament**.
   Whilst the US and Russia can point to some degree of progress through the negotiation of the START nuclear disarmament treaties, Britain has yet to enter any negotiating process. Russian President Vladimir Putin's proposal for five-power

nuclear disarmament talks provide an opportunity for the UK Government to begin the process of engaging with the United States and Russia in multilateral disarmament talks.

4. **The Government should review the option of converting the UK Trident submarines to conventional use**.
   The Labour Government has consistently argued that no further review of British nuclear policy or progress on nuclear disarmament is necessary following the SDR, which was predicated on the assumption that Trident must be retained for the foreseeable future. The US Government is now radically revising its nuclear posture. It is also converting a number of its Trident submarines to fulfil a conventional role. The UK Government should now seriously consider the future role of Trident, including the possibility that it could be converted to conventional use in the context of a wide-ranging review of British defence needs.
5. **Government policy and decision making on nuclear weapons should be subject to detailed parliamentary scrutiny**.
   There has been a marked reduction in parliamentary scrutiny of the UK nuclear programme in the last five years. Many key questions concerning the current status of British nuclear policy remain unanswered: What is the Government's position on replacement of Trident? Are there any plans to develop a new UK nuclear warhead? Has authorization been given to Aldermaston to pursue life extension programmes for Trident? What is the nature and extent of current British nuclear cooperation with the US nuclear weapons laboratories? What are the implications of changes in US nuclear strategy and posture for UK and NATO nuclear policy? Has the UK Government studied US proposals to convert Trident submarines to conventional use?

There are also questions concerning the UK's non-proliferation policy: What steps are envisaged to implement the 2000 NPT Nuclear Disarmament Plan? How does the UK Government intend to respond to President Putin's proposal for disarmament talks?

Without fuller access for Parliament to information concerning nuclear policy, proper scrutiny of and accountability for the UK's nuclear programme will be impossible.

Acronyms and abbreviations

AWE:	Atomic Weapons Establishment
BTWC:	Biological and Toxin Weapons Convention
CTBT:	Comprehensive Test Ban Treaty
EIVR:	Exchange of Information and Visit Report
ICJ:	International Court of Justice
JOWOG:	Joint Working Groups
LLNL:	Lawrence Livermore National Laboratory
NATO:	North Atlantic Treaty Organisation
NIF:	National Ignition Facility
NIPP:	National Institute for Public Policy
NNSA:	National Nuclear Security Administration
NPR:	Nuclear Posture Review
NPT:	Non-Proliferation Treaty
RMA:	Revolution in Military Affairs
SACEUR:	Supreme Allied Command Europe
SDR:	Strategic Defence Review
SEAL:	Sea-Air-Land
SLBM:	Submarine-Launched Ballistic Missile
SLEP:	Stockpile Life Extension Programme

SSBN:	Ship Submersible Ballistic Nuclear
SSN:	Ship Submersible Nuclear
TASM:	Tactical Air-To-Surface Missile
UN:	United Nations

Making progress in the areas of nuclear non-proliferation and nuclear disarmament is more important than ever in the aftermath of last week's appalling terrorist attack on the United States. The states parties to the Treaty on the Non-Proliferation of Nuclear Weapons agreed last year that this challenge could not be overcome by halfway measures. Indeed, they concluded that 'the total elimination of nuclear weapons is the only absolute guarantee against the use or threat of use of nuclear weapons'. Regrettably, several important treaties aimed at nuclear non-proliferation, nuclear disarmament or nuclear reductions still await entry into force. It is vitally important for the world community to continue its efforts to implement the commitments already made, and to further identify the ways and means of achieving nuclear disarmament as soon as possible.

United Nations Secretary-General, Kofi Annan, addressing the International Atomic Energy Agency General Conference, 17 September 2001

Introduction

In its second term in office, Tony Blair's Labour Government faces unique challenges in the field of international security. Following the massive terrorist attacks on New York and Washington on 11 September 2001, urgent action is needed for renewed international efforts to prevent the proliferation of nuclear, chemical and biological weapons.

Tackling the threat posed by trans-national terrorism will require a fresh review of UK defence and foreign policy. In the past the UK and its NATO allies have viewed nuclear weapons as providing the 'ultimate guarantee' of security. However, the terrorists who carried out the attacks on the United States were clearly undeterred by Western nuclear forces, and it is difficult to see how nuclear weapons could be used in the current (or any) war against terrorism without risking massive civilian casualties and the fracture of the fragile international coalition that has been put together.

The strategies employed during the Cold War era are no longer relevant to the new international order that is emerging from the aftermath of 11 September. Between now and the next General Election in 2004-2005, the UK Government will need to reappraise key aspects of its defence policy in the light of a rapidly changing international environment, including the future of the Trident nuclear force.

Labour's second term in office will cover a critical period for the future of the international regimes controlling nuclear weapons. The next nuclear Non-Proliferation Treaty (NPT) review conference will be held in 2005. The UK Government is strongly committed to the NPT, but if the nuclear non-proliferation regime is to be made more robust, progress must be made over the next four years to implement the treaty's commitments on moving towards disarmament.

As the UK Government prepares to re-examine British defence policy requirements in the wake of 11 September, including ways to redouble efforts to prevent proliferation of nuclear, chemical and biological weapons, this report highlights some of the key nuclear policy questions that will need to be addressed during Labour's second term. What is the likely impact of the Bush Administration's nuclear policies on the UK's highly US-dependent nuclear forces? Should Trident be replaced in the future or entered into multilateral disarmament negotiations? Should the service life of Trident be extended, or could Trident submarines be converted to become conventionally armed submarines in the future? Can nuclear weapons be used as a deterrent to proliferators? In the light of

recent challenges in the courts, is British nuclear policy legal?

The first half of the report examines the current state of UK nuclear weapons policy and the scope of UK-US nuclear relations. Chapter 1 looks at the history of the UK nuclear capability along with the ongoing debates over 'No-first-use', negative security assurances, and the sub-strategic role for Trident. Chapter 2 describes the close relationship between the United Kingdom and the United States on nuclear weapons policy, and in particular, the UK's reliance on the United States for technical, scientific and structural assistance in keeping the Trident system operational. Chapter 3 highlights the ongoing debate over the legality of the UK Trident system and the work of civil society groups, especially the Trident Ploughshares group, in opposing UK nuclear doctrine.

The second half of the report examines the forthcoming changes in US nuclear doctrine and how these expected developments will impact upon UK nuclear policy. Chapter 4 examines how deep unilateral cuts in the US nuclear arsenal might impact on UK nuclear policy, and raises the possibility that London might favourably act upon proposals for P5 talks put forward by President Putin. Chapter 5 looks at how US challenges to the existing framework of arms control and disarmament will impact on a UK foreign policy that has traditionally favoured 'treaty based' forms of security. Chapter 6 examines how a possible shift towards a more aggressive US nuclear posture might impact upon UK nuclear weapons policy. Chapter 7 details the various efforts by the United States to upgrade its own Trident system, including partial conversion to conventional use, and asks whether the UK Government should follow suit. The final section sets out a number of practical recommendations as to how the United Kingdom could develop its nuclear policy in line with its disarmament commitments without compromising national security.

Chapter 1:

British nuclear policy under Labour (1997-2001)

A new Labour government will retain Trident. We will press for multilateral negotiations towards mutual, balanced and verifiable reductions in nuclear weapons. When satisfied with verified progress towards our goal of the global elimination of nuclear weapons, we will ensure that British nuclear weapons are included in multilateral negotiations. .

Labour Party Manifesto, 'New Labour: Because Britain deserves better', 1997

1.1 The history of British nuclear policy

Britain's nuclear weapons programme dates back to the second world war, when the Churchill Government established the MAUD Committee to guide British research on atomic energy and the feasibility of developing a 'super-bomb'. The MAUD Committee's report in 1941 was instrumental in driving forward the US Manhattan project to develop the atomic bomb, in which many British scientists participated.

Although British collaboration with the United States on nuclear weapons was severely curtailed after the war by the US Congress, Britain proceeded to test its first nuclear bomb in 1952 and to manufacture nuclear weapons for deployment on its V bombers. Nuclear co-operation with the United States was resumed in the late 1950s with the signing of the 1958 Mutual Defence Agreement, and in 1963 the Polaris Sales agreement was signed. The 1958 Agreement provides the basis for ongoing co-operation between the UK's nuclear weapons establishment and the US nuclear weapons laboratories to this day, while the current agreement for the United Kingdom to procure the US Trident missile system is based on the Polaris Sales Agreement.

Most British nuclear disarmament initiatives have been unilateral and fairly limited in scope, for example: the decision in 1993 to cancel the nuclear armed Tactical Air-Surface Missile (TASM) before it could enter production; and the decision to withdraw the WE177

"free fall" bombs (which had been deployed by the Royal Navy and the Royal Air Force) from service ahead of schedule. Other withdrawals of nuclear forces have been imposed on the United Kingdom by the United States, such as the removal of the nuclear Lance missile and the nuclear artillery role, which were carried out using US nuclear weapons held under "dual-key" arrangements. These weapons were withdrawn following the unilateral reductions in tactical nuclear weapons announced by Presidents Bush and Gorbachev in 1991.

Trident is now the UK's only nuclear weapon system. The 'system' consists of:

- four British-built Trident submarines – HMS Vanguard, HMS Victorious, HMS Vigilant, and HMS Vengeance (the first of which entered service in 1994, and the last in 1999);
- US Trident II D5 missiles (each submarine is capable of carrying up 16 of these missiles); and
- nuclear warheads, built and serviced by the UK's atomic weapons establishments, although the warhead design is believed to be closely based on the US Trident warhead, W76, with a yield of approximately 100 kilotons. The British nuclear arsenal is based on a stockpile of "less than 200 operationally available warheads".2

The Trident system is expected to remain in service for approximately 30 years.

Following the 1997 election, the new UK Government conducted a Strategic Defence Review (SDR), setting out its policy on the full spectrum of defence policy including nuclear weapons. Although the SDR is based on the premise that there has been a "relaxation of tension and vast improvement in current strategic conditions since the end of the Cold War"3 , changes to Britain's nuclear policy and posture since 1997 have been fairly cautious, and there have been few changes since the review was published in 1998.

1.2 Nuclear force reductions under Labour

Labour's only pre-election policy document on international affairs, A Fresh Start for Britain, promised: "Labour in government will work for: a freeze on warhead numbers. As a first step, we will ensure that Trident carries no more warheads than Polaris".4 When Polaris first entered service in 1968 it carried 48 warheads per submarine. This was reduced to 32 warheads following the Polaris Chevaline modernisation programme. A Fresh Start for Britain gave the impression that Trident warhead numbers could be cut to as low as 32 per submarine. (Previous Conservative government policy had been that the Trident submarines would deploy with "no more than 96 warheads, and possibly significantly fewer").5

When the SDR was published a less radical reduction was announced: 48 warheads per submarine, the number carried by Polaris submarines when they originally entered service in 1968. The Labour Government's argument was that it had made a reduction of "more than 70% in the potential explosive power of the deterrent since the end of the Cold War" and that Trident submarines would "have an explosive power one third less than the 32 Chevaline warheads which were eventually deployed on each Polaris submarine".6

Subsequent parliamentary questions have confirmed that the actual number of Trident warheads deployed has been reduced from 60 warheads per submarine under the Conservatives to 48 warheads under Labour. According to the Labour Government, implementation of the SDR meant that: "12 warheads are to be removed from each of the three Trident submarines currently in service during their next programmed docking in the warhead fitting facility at Coulport… Production of warheads to meet previous plans had not been completed and we do not need to decommission any warheads to implement Strategic Defence Review changes".7 Despite the end of the Cold War, Trident warhead deployments remain at a similar, if not higher level than Polaris in the 1970s and 1980s (see table 1).

Table 1: British nuclear-armed submarine deployment since the 1970s

Force size	1970s, Polaris	1980s-1990s, Polaris Chevaline	1994-1997, Trident, Conservative Policy	1998 onwards, Trident, Trident, Labour Policy
Submarines	4	4	4	4
Submarines on patrol	1	1	1	1
Missiles per sub (Table 3)	16	16	12-16	12-16
Warheads per submarine	48	32	60	48
Submarine targeting capability	16	16	60	48

Source: Official Report, House of Commons, 16 July 1998, col. 237; 30 July 1998, col. 452 and The Strategic Defence Review: Supporting Essays, The Stationery Office, July 1998 p 5-2

The SDR also decided that the policy of continuous deterrent patrols, dating back to the introduction of Polaris in 1968, should be continued: "one Trident submarine should be maintained on deterrent patrol at any time". It rejected other proposals for de-alerting such as removing warheads from missiles and storing them separately on shore. Instead, the Government announced that Trident would "normally be at several days 'notice to fire'".8 Suggestions that the fourth Trident submarine, HMS Vengeance, could be 'mothballed' were also ruled out as the SDR argued that the fourth Trident submarine was needed to retain "an effective deterrent for up to 30 years".9

Trident is also significantly more advanced than Polaris. The D5 missile has a longer range, greater speed and higher level of accuracy than the Polaris missile. In particular, Trident's multiple independently-targeted re-entry vehicles allow warheads deployed on a single missile to hit separate targets, thereby greatly increasing the number of targets that Trident can reach.

1.3 Trident missile procurement

The Strategic Defence Review also announced a reduction in the number of Trident II missiles that it planned to procure from 65 to 58. Not all of these missiles will be deployed: 14 are expected to be test fired during the lifetime of the UK Trident force, while four will be held as a processing margin (see table 2).

Table 2: Breakdown of British Trident missile procurement

Total Missiles Procured	58
Missiles already test fired	7
Missiles to be test fired in future	7
Missiles held as processing margin	4
Remaining operational stockpile	40

Source: Official Report, House of Commons, 30 July 1998, Column: 449.

All four UK Trident submarines have now collected a payload of missiles from the United States. The number of missiles deployed on British Trident submarines is classified; however, as table 3 indicates, the submarines probably do not always deploy with a full payload of missiles.

Table 3: British Trident missile deployment

Submarine	Missiles Collected	Date
HMS Vanguard	16	1994
HMS Victorious	12	1995
HMS Vigilant	14	1997
HMS Vengeance	Unknown	2000
Total	42 +	

Source: Official Report, House of Commons, 9 May 1995, col. 405; 1 December 1997, col. 27; and 30 July 1998, cols. 448-449.

1.4 Nuclear posture: the 'No-first-use' debate

The biggest change in Labour Party thinking on nuclear policy after it was elected to government in 1997 was the abandonment of any policy on 'No-first-use' of nuclear weapons. While in opposition, Labour Party policy was that a Labour government would work for "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".10

Although there was no mention of 'No-first-use' in the SDR, in response to parliamentary questions, government defence spokesperson, Lord Hoyle revealed: "We considered No-first-use in the Strategic Defence Review but saw no reason to change our and NATO's current nuclear policy".11

Since the 1960s, NATO has refused to rule out the option of being the first to use a nuclear weapon in a conflict situation. In the euphoria following the end of the Cold War, the Alliance's 1990 London Declaration announced that nuclear weapons were now weapons of "last resort",12 but in NATO's Strategic Concept of 1991, the question of 'No-first-use' of nuclear weapons was not mentioned. NATO's military commanders have always interpreted the absence of any political statement ruling out first-use of nuclear weapons as meaning that the option of using nuclear weapons first is not prohibited, and that therefore Alliance nuclear planning can include this option.13

US nuclear posture also includes the option of nuclear first use. In late 1997, during the same period that the UK Government was conducting its SDR, President Clinton issued a new Presidential Decision Directive (PDD 60), giving guidelines to the US military on targeting of nuclear weapons. Far from ruling out 'first-use', PDD 60 reportedly extended the role of US nuclear weapons to include deterring potential proliferators of weapons of mass destruction.14

Against this background, and amidst rumours of pressure from the Pentagon to drop the issue, the publication of the SDR, followed NATO's strategy to the letter by avoiding any mention of 'No-first-use'.

Only six months later at the December 1998 meeting of NATO's North Atlantic Council, Chancellor Schröder's newly elected German Government attempted to raise the possibility that NATO's Strategic Concept could be changed to include a policy of 'No-first-use'. In April 1999, NATO Heads of State and Government finally agreed on a new formulation of its nuclear posture in the Alliance's new Strategic Concept. The German Government's suggestion of a 'No-first-use' policy met with stiff opposition from the nuclear weapon states.15 Even an earlier form of words, dating back to the 1990 London Declaration describing nuclear weapons as weapons of "last resort" was ruled out by the US as too strong a commitment. Instead the use of NATO nuclear weapons was described as "extremely remote",16 allowing NATO, US and British nuclear posture to remain largely unchanged on this issue.

1.5 Negative security assurances

Negative security assurances were first issued by the United States, Britain and the

former Soviet Union in 1978 at the third UN Special Session on Disarmament. In essence the UK Government pledged not to use or threaten to use nuclear weapons against non-nuclear weapon states parties to the nuclear Non-Proliferation Treaty (NPT) regime unless they were to attack the United Kingdom in alliance with a nuclear-weapon state. Negative security assurances remain an important element of the NPT. The importance of these statements is emphasised by Ambassador Thomas Graham, Jr, former head of the US delegation to the 1995 NPT Review and Extension Conference:

> Numerous non-nuclear weapon states made their decision to join the NPT after this commitment was announced. This commitment (referred to as a negative security assurance) was reaffirmed in April 1995 by the nuclear weapon states in the context of the 1995 NPT Review and Extension Conference. Without it, the indefinite extension of the NPT might not have taken place… state parties to the NPT agreed to its indefinite extension relying on this reaffirmation.17

Although A Fresh Start for Britain had proposed, "strengthened security assurances to non-nuclear weapon states in the form of an international legally-binding treaty", instead Labour in government has followed the US policy of 'deliberate ambiguity' on this issue. In 1997, the then UK minister of state for the Armed Forces, Dr John Reid, described the new Government's approach to the threat of WMD and ballistic missile proliferation as follows:

> The role of deterrence... must not be overlooked. Even if a potential aggressor has developed missiles with the range to strike at the United Kingdom, and nuclear, biological or chemical warheads to be delivered by those means, he would have to consider – he would do well to consider – the possible consequences of such an attack... It seems unlikely that a dictator who was willing to strike another country with weapons of mass destruction would be so trusting as to feel entirely sure that that country would not respond with the power at its disposal.18

Despite Labour's pre-election commitment to a legally binding treaty on security assurances, in the SDR the UK Government simply restated its existing negative security assurance that: "Britain has repeatedly made it clear that we will not use nuclear weapons against a non-nuclear weapon state not in material breach of its nuclear non-proliferation obligations, unless it attacks us, our Allies or a state to which we have a security commitment, in association or alliance with a nuclear weapon state".19 The UK Government also welcomed and supported the "re-establishment of an Ad Hoc Committee on Security Assurances at the Conference on Disarmament in Geneva",20 but as yet no progress has been made towards negotiation of a legally binding negative security assurance.

Immediately after the release of the SDR, in response to written questions in the House of Lords concerning nuclear retaliation in the case of "aggressor states contemplating the use of chemical and biological weapons", Lord Hoyle confirmed that:

> The use of chemical or biological weapons by any state would be a grave breach of international law. A state which chose to use chemical or biological weapons against the United Kingdom should expect us to exercise our right of self defence and to make a proportionate response.21

Phrases such as 'proportionate response' are deliberately ambiguous, intended to convey the message that potential nuclear use has not been ruled out. For example, a UK Ministry of Defence report, Defending Against the Risk: Chemical and Biological Weapons, concluded:

> *To date [1999] neither arms control nor export controls have been sufficient to prevent the proliferation of biological and chemical weapons. We must therefore also seek to deter the use of biological and chemical weapons by assuring a potential aggressor of three related outcomes, namely that: their use will not be allowed to secure political or military advantage; it will, on the contrary, invite a proportionately serious response; and that those, at every level, responsible for any breach of international law relating to the use of*

*such weapons, will be held personally accountable.*22

By using language usually associated with nuclear weapons such as the reference to deterring a 'potential aggressor' and using a 'proportionately serious response', the UK Government signalled that the use of nuclear weapons to deter chemical or biological threats has not been ruled out.

Far from providing "strengthened security assurances to non-nuclear weapon states in the form of an international legally-binding treaty" as Labour's pre-election policy documents had suggested, these subsequent statements concerning the possible use of nuclear weapons against biological and chemical weapons proliferators weaken the UK's previous negative security assurances. As Ambassador Graham writes:

*Suggestions that nuclear weapons should be used to explicitly deter chemical or biological attacks should not be allowed to justify failure to adopt a no first use policy. Not only would such a strategy be inappropriate and disproportionate, it would endanger the NPT regime… There is no exception in this commitment [the negative security assurances] for chemical or biological weapons.*23

1.6 A new sub-strategic role for Trident

Trident was originally intended to provide the UK with an 'independent' strategic nuclear capability aimed at deterring the large nuclear arsenals of the Soviet Union/Russia. It is now also intended to provide a sub-strategic nuclear capability, described as the option to perform a more "limited nuclear strike that would not automatically lead to a full scale nuclear exchange".24 The so-called 'sub-strategic' role for Trident has been particularly linked with deterrence of chemical and biological threats.

In the early 1990s, the then Conservative Government planned to develop a tactical air-to-surface missile (TASM) to implement the sub-strategic nuclear role. However, when TASM was cancelled in 1993 following the end of the Cold War, the then secretary of state for defence, Malcolm Rifkind, announced that the United Kingdom would "exploit the flexibility and capability of Trident to provide the vehicle for both sub-strategic and strategic aspects of deterrence".25

How exactly Trident would carry out this sub-strategic role has never been entirely clear. In 1993, the Ministry of Defence told the Defence Select Committee that Trident would use the same missile and warheads to fulfil the sub-strategic role as it used for the strategic role.26 The only changes to Trident noted by the Defence Committee were "minor enhancements to the hardware and software of the UK shore-based target planning system".27 This suggested that one of the principal differences between the strategic and sub-strategic roles were the kind of targets that sub-strategic weapons were to be used against.

Following the SDR, the Defence Select Committee again addressed the question of Trident's sub-strategic role. According to the MoD director of policy, Richard Hatfield: "[The sub-strategic role] is a form of deterrence, not necessarily a specific weapon".28 However, the UK's Atomic Weapons Establishment (AWE), which is responsible for design and manufacture of the UK's nuclear warheads, states in its 2000 Annual Report that the UK Trident programme has the "option of two warhead yields",29 suggesting that the lower yield might be used to provide the sub-strategic role.

The secretary of state for defence, George Robertson, also told the Defence Committee that the sub-strategic option was "an option available that is other than guaranteed to lead to full scale nuclear exchange". He envisaged that a nuclear-armed country might wish to "…use a sub-strategic weapon making it clear that it is sub-strategic in order to show that …if the attack continues [the country] would then go to the full strategic strike," and that this would give a chance to "stop the escalation on the lower point of the ladder".30

This scenario raises more questions than answers and it is difficult to see how it could work in practice. With identical Trident missiles providing both the strategic and sub-

strategic role, it is difficult to see how the UK Government would be able in practice to make it 'clear' that the use of nuclear weapons in response to an attack was strategic or sub-strategic. Even the use of a lower yield nuclear warhead against another country would be highly controversial, probably illegal and likely to prompt a severe response if targeted against another nuclear weapon state. As the Defence Committee concluded:

*We regret that there has been no restatement of nuclear policy since the speech of the then Secretary of State in 1993; the SDR does not provide a new statement of the government's nuclear deterrent posture in the present strategic situation within which the sub-strategic role of Trident could be clarified. We recommend the clarification of both the UK's strategic and sub-strategic nuclear policy.*31

1.7 Transparency, democratic accountability and parliamentary scrutiny

One of the most welcome aspects of the SDR was increased transparency concerning the UK's stocks of fissile material and the UK Government's initiative to develop expertise in verification of nuclear arms reductions. This latter commitment has already been followed up with an AWE Study Report, Confidence, Security and Verification and a number of studies on past defence fissile material production.32

The Defence Select Committee has welcomed "all the steps taken in the SDR to provide more transparent information about our nuclear deterrent posture, and look[ed] forward to hearing more about the government's progress towards its aim to eliminate nuclear weapons from the world".33 However, access to information and parliamentary scrutiny of nuclear policy has, if anything, become more difficult under Tony Blair's Government than under the Major and Thatcher Governments. Until 1995, the UK Trident programme was subjected to detailed scrutiny by the Defence Select Committee's annual inquiries on 'Progress of the Trident Programme'. These annual inquiries were introduced following the misleading of Parliament over the Chevaline programme to upgra-de Polaris (see box 1).

Since the 1997 election, the UK Government has also abandoned the publication of the annual Statements on the Defence Estimates, which during the 1980s and early 1990s provided regular information on nuclear policy. Instead, a range of documents are published as part of the Ministry of Defence reporting cycle, including MoD performance reports, MoD investment strategies, and occasionally a Defence White Paper. Collectively these documents contain a lot less information on nuclear policy than the previous Statements. In describing the 1999 Defence White Paper, for example, the Defence Select Committee said: "What is notable is the comparison between the major policy statements or restatements in previous Statements on the Defence Estimates and the 1999 White Paper. The former attempted to be a comprehensive statement of defence policy but the latter is much shorter, more glossily presented, and makes no claim to be comprehensive". The Committee concluded:

*Despite the public consultation surrounding the Strategic Defence Review, the attitude of the MoD towards making its thought processes publicly accessible is far from radically transformed from the bunker mentality of the Cold War era. A small example is the series of questions we posed to the Secretary of State about the UK's nuclear posture. The Policy Director informed us that a thorough restatement had been made by the previous Secretary of State [for Defence] at the University of Aberdeen in March last year. A very quick straw poll revealed that even amongst an expert circle this speech was largely unknown – though we did discover it on the MoD's website. To rely on the MoD to judge when any change of policy is worthy of public announcement would be rather like having left the late Greta Garbo in charge of her own publicity.*34

The most recent Defence White Paper was published in 1999. Instead, in 2001, the Ministry of Defence published two short documents, Defence Policy 2001 and The Future Strategic Context for Defence. The documents were published just hours before the Defence Select Committee was due to take oral evidence from the Secretary of State

for Defence, leaving minimal time for any detailed analysis or questioning on what they contained. As the Defence Committee later noted:

Producing separate documents to be read in conjunction is not as useful a policy exercise, either for the MoD or Parliament, as producing a single document which integrates different issues and timescales. ….Neither document contains much that could be construed as a statement of the government's current nuclear policy. Defence Policy 2001 has one paragraph on the topic —

*We assess that, for the foreseeable future, it is unlikely that a direct threat to the UK could re-emerge on a scale sufficient to threaten our strategic security, whether through conventional means or weapons of mass destruction. Nevertheless, given the need to insure against the long term and the continued existence of nuclear arsenals, our own nuclear deterrent will continue to be the ultimate guarantor of our security.*35

This lack of transparency and accountability to Parliament on nuclear policy is reminiscent of the situation in the 1970s, when the lack of detail provided in the Defence White Papers were part of a secretive environment that allowed the Chevaline scandal to unfold. With major changes now taking place in US nuclear policy, and significant developments at Aldermaston concerning the future of the UK's nuclear force, it is imperative that regular and detailed government reporting to Parliament, together with effective parliamentary scrutiny, are restored. This is necessary both in terms of UK strategic nuclear policy and the government's policy to eliminate nuclear weapons in line with international commitments made under the NPT. As the Defence Select Committee concluded:

*We sought, as far back as our inquiry on the SDR, a restatement of the government's strategic nuclear policy. We have been offered some dribs and drabs, including a speech made by the former Secretary of State at Aberdeen University. We consider that the government, now rightly thinking (if not yet forming policy) for the period of 30 years ahead, needs to address this issue more squarely.*36

Box 1: The Chevaline Scandal

Chevaline was intended to enable Polaris to overcome the Soviet Anti-Ballistic Missile system by using decoys. The programme was deliberately concealed from Parliament for over 12 years despite four changes of government. The programme was beset with technical difficulties and costs spiralled out of control. As the Public Accounts Select Committee concluded when the Chevaline programme was finally revealed, "the failure to inform Parliament or this Committee until 1980 that major programme on this scale was being undertaken, or that its cost was turning out to be so far in excess of that originally expected, is quite unacceptable. Full accountability to Parliament in future is imperative." To this day, the cost of key components of the UK's nuclear programme are provided only in a highly selective and incomplete style.

Source: Ministry of Defence Chevaline Improvement to the Polaris Missile System, Ninth Report from the Committee of Public Accounts, HC 269 of Session 1981-82

Chapter 2:

British nuclear policy: secrecy and dependency on the United States

2.1 The special nuclear relationship

British nuclear policy is closely intertwined with that of the United States. As a result of the Labour Party's damaging debates on unilateral nuclear disarmament in the 1970s and 1980s, Tony Blair has been keen to present his Government as 'strong' on defence and a key ally of the United States. This policy has manifested itself in a number of ways. For

example, Britain has taken a leading role in NATO operations in Kosovo and is the only NATO ally that has been participating with the United States in enforcing the 'no-fly zones' inside Iraq. More recently, Tony Blair stood 'shoulder to shoulder' with President Bush in both the diplomatic and military response to the 11 September terrorist attacks on the United States.

In addition, despite the contrary views of many colleagues in the Labour Party and opposition from many European allies, Tony Blair has lent support to controversial Bush administration policies on missile defence. In May 2001, NATO Foreign Ministers, led by France and Germany, refused to back US perceptions of a growing threat from missile proliferation. However, at his first summit meeting with President Bush, Tony Blair endorsed the Bush Administration's view of a 'common threat' from ballistic missiles and weapons of mass destruction. Despite the concerns of many Labour MPs, Blair and Bush agreed to "obstruct and deter these new threats with a strategy that encompasses both offensive and defensive systems,"37 a statement widely interpreted as providing support for US missile defence plans.

The tacit support of senior British Government officials for missile defence has been linked with British dependence on the United States in the military sphere, especially in intelligence gathering, major military operations such as the NATO bombing campaign in the Federal Republic of Yugoslavia, and the UK Trident programme. Former special adviser to the secretary of state for foreign and commonwealth affairs, David Clark, describes the UK-US relationship as a form of "vulgar atlanticism", in which many British officials are unwilling to question US policies.38

As this chapter makes clear, in addition to this high level US-UK political cohesion, the UK nuclear programme is intertwined on many levels – including the technical, scientific and structural – with that of the United States. Any serious consideration of a more independent UK stance on a range of key international issues has to take the extent and effect of these interconnections into account. Chapters four and five explore these issues further, examining the possible impact on UK nuclear policy of the Bush administration's uncompromising approaches to arms control and nuclear weapons.

2.2 Trident: a US warhead design

The United Kingdom cooperates extensively with the United States on warhead design, development and ongoing stockpile stewardship for the Trident warhead. Cooperation takes place under the 1958 Agreement for Co-operation on the use of Atomic Energy for Mutual Defence Purposes and a range of related agreements, amendments and Memoranda of Understanding, many of which are still classified. The 1958 agreement provides for the exchange of classified information concerning nuclear weapons to improve "design, development and fabrication capability".39

The UK Trident warhead is believed to be closely based on one of the US Trident warheads, W76, which has a yield of approximately 100 kilotons. Although this has never been officially confirmed, documents released under the US Freedom of Information Act indicate that in the early 1980s, when the UK was designing its Trident warhead, the Joint Atomic Information Exchange Group40 established communication channels to allow the US to pass to the UK "atomic information on the MK-4 Re-entry Body and W76 Warhead for the Trident Missile Systems".41 In addition, the British Trident warhead was tested at the US Nevada Test Site.

2.3 Stockpile stewardship: continuing co-operation with the United States

There is a high level of ongoing co-operation between the US nuclear weapons laboratories and Britain's AWE on stockpile stewardship and management of the Trident warhead. This is seen as essential for maintaining the ability to replace Trident in the future. The SDR, for example, stated that "for as long as Britain has nuclear forces,

we will ensure that we have a robust capability at the Atomic Weapons Establishment to underwrite the safety and reliability of our nuclear warheads".42 It also concluded that it would be "premature to abandon a minimum capability to design and produce a successor to Trident should this prove necessary".

Earlier in 1995 the UK Ministry of Defence stated that the UK's stockpile stewardship would be "undertaken in continuing co-operation with the United States, which will contribute to the safe stewardship of Trident throughout its service life as well as sustaining capabilities to meet future requirements".43

Britain participates in regular exchanges on a wide range of research and technology under the auspices of the 1958 agreement, involving all three US National Laboratories: Lawrence Livermore National Laboratory, Sandia National Laboratory and Los Alamos National Laboratory. Co-operation under the 1958 agreement is conducted through Joint Working Groups (JOWOGs) and Exchange of Information and Visit Reports (EIVRs). As of January 1998, there were US-UK Joint Working Groups on a wide range of nuclear-related topics, including all aspects of nuclear warhead development (see table 4).

In addition, under the 1998 'Polaris Sales Agreement as amended for Trident', the United Kingdom is involved in a "Joint Steering Task Group, supported by the Trident Joint Re-Entry Systems Working Group and the Joint Systems Performance and Assessment Group". 44

Under the Labour Government, the level of co-operation has continued to be extensive. For example, the UK Government has confirmed that Sandia National Laboratory in the United States carried out "development, evaluation, production and stockpile surveillance of the UK's Trident re-entry body system" on its behalf at a cost of between £600,000 and 1.5 million in 1997.45 The UK Government also continues to receive "briefings on the scope and outcome of US sub-critical experiments carried out at the Nevada Test Site".46 The AWE is clearly interested in a number of ongoing US programmes concerning refurbishment, revalidation and life extension of the US Trident warheads, in particular W76. According to the 1998 AWE annual report:

*AWE participated significantly, as an independent contributor, in the United States Dual Revalidation Programme, which reviewed the status of the American Trident warhead, the W76… Other more focussed exchanges, with the United States continued in support of the current Trident programme and in preparation for the refurbishment that will be required for Trident early in the next decade.*47

Furthermore, in its 2000 Annual Report, the AWE notes that:

*Life extension [of the Trident programme] could offer cost savings by reducing the number of times a warhead is rebuilt within its required full-service life. Continued production of Trident – although only at trickle rates – will enable us to replace the oldest warheads, while exercising and maintaining our assembly capability.*48

A key aspect of AWE's work is "maintaining capability through science". According to the 2000 Annual Report, "four major areas of research are central to AWE's capabilities to maintain the United Kingdom's nuclear deterrent – hydrodynamics, laser physics, high performance computing and materials science". 49 Many of these areas of research are already covered by Joint Working Groups, or are areas where the AWE receives assistance from the United States:

*Hydrodynamics and physics provide the basis for a broad range of collaborative work and experiments with scientists in the United States. One exciting example of this is the Billi-G project where experiments designed and fabricated by AWE are working to develop a more complete understanding of proton radiography at the Los Alamos Neutron Science Centre.*50

Table 4: US-UK Joint Working Groups

Radiation simulations and kinetics technology
Energetic Materials
Test Monitoring
Nuclear Materials
Warhead electrical components and technologies
Non-nuclear materials
Nuclear counter-terrorism technology facilities
Nuclear weapons engineering
Nuclear warhead physics
Computational technology
Aircraft, missile and space system hardening
Laboratory plasma physics
Manufacturing practices
Nuclear weapon accident response technology
Nuclear weapon code development
Nuclear weapon environment and damage effects

Source: Official Report, House of Commons, 12 January 1998, columns 139-140

Similarly, with regard to laser physics, in June 1999, Britain announced that it intended to invest in the US National Ignition Facility (NIF) at Lawrence Livermore National Laboratory (LLNL) for a 10 year period at a cost of £100 million. The investment in the NIF was described as "an affordable and cost-effective way of discharging the undertaking we gave in the Strategic Defence Review that we would ensure the safety and reliability of our nuclear weapons".51 However, there are concerns in the United States that the cost of the NIF is escalating and there are outstanding questions regarding the effectiveness of the facility.52 In addition, AWE is working on a re-configuration of its existing HELEN laser at Aldermaston using "available components (worth approximately £2M) from LLNL through the United States Department of Energy".53

In the area of high performance computing, AWE is also following the US lead and is acquiring a £15 million new supercomputer.54 High performance computing is also a key aspect of the US stockpile stewardship programme, in particular the US National Nuclear Security Administration's Accelerated Strategic Computing Initiative (ASCI), which aims "to develop the simulation capability needed for conducting stockpile stewardship and maintaining nuclear weapons reliability".55

2.4 Increasing US-UK co-operation

In recent years, contact between personnel working on the respective UK and US nuclear weapons programmes appears to have increased dramatically. During the period 1 June 1998 to 31 May 1999, 235 visits were made by British personnel to US nuclear weapons facilities under the auspices of the 1958 agreement, nearly double the number of visits that were made during the early 1990s (see table 5).

Table 5: Visits of UK personnel to US nuclear facilities

1990-91	110
1991-92	129
1992-93	127
1993-94	129
1994-95	136
1998-99	235

Source: Official Report, House of Commons, 30 June 1999, column 159

Between 1 January and 30 September 1999 (the last period for which official figures are available), 381 United States personnel visited AWE Aldermaston, including representatives of the US government, weapons laboratories and nuclear industry corporations (see table 6).

Table 6: US organisations visiting Aldermaston (Jan-Sept 1999)

Department of Energy
Department of Defense
Defense Threat Reduction Agency
Los Alamos, Lawrence Livermore and Sandia National Laboratories
Kaiser-Hill
Mason & Hanger, Pantex
Westinghouse Savannah River
Chew & Associates Inc
Allied Signal, Kansas City Division
Lockheed Martin, Y-12 Plant
Lockheed Martin Missiles Systems
ITT SSC
Lovelace Respiratory Research Institute
University of California
McCrone Associates
Battelle Pacific Northwest Laboratories
Applied Research Associates Inc.

Source: Official Report, House of Commons, 19 October 1999, column 423

In addition, as of 1998-99 there were five UK personnel stationed in the US as part of the 1958 Agreement, three AWE employees on short-term appointments at Los Alamos and Lawrence Liver-more national laboratories, and a further 15 British personnel in the United States as part of the 'Polaris Sales Agreement, as amended for Trident'. In turn there were four US personnel based in the United Kingdom as part of this latter agreement, but no US personnel based in the United Kingdom under the terms of the 1958 agreement.56

In October 2000, AWE hosted a meeting of Joint Working Group 32, under the terms of the 1958 agreement, covering "the more extreme end of weapon functioning, in terms of understanding the interaction and performance of nuclear components at high temperatures and pressures. The exchange attracted significant interest with 27 United States' delegate attendees met by a comparable number of AWE personnel".57 The involvement of US company Lockheed Martin, and the multinational Serco, alongside British Nuclear Fuels Ltd (which itself has extensive interests in the United States) in the running of AWE is likely to further cement the links between AWE and the US nuclear weapons industry.

Although the British government has always claimed that the UK Trident warhead is built to a British design, the extent of nuclear co-operation with the United States indicates that the United Kingdom is highly dependent on US assistance. This is particularly the case in terms of maintaining warhead safety and reliability in 'service' and in maintaining a capability to design replacements for Trident.

The United Kingdom is clearly engaged in co-operative programmes with all three major US nuclear weapons laboratories and is receiving information and assistance on all aspects of its stockpile stewardship programme. The United Kingdom has a par-ticular interest in US programmes relating to W76.

The UK Trident programme is intended to have a service life of approximately 30 years. However, a long timescale is required to develop new nuclear weapon systems. Initial

studies on how to replace Polaris date back to the late 1970s, but it took a full 20 years until Trident entered full operational service in the late 1990s. These long timescales indicate that initial UK Government thinking on a replacement for Trident may already be underway. AWE states that it is maintaining a "capability to design a new weapon should it ever be required".58 Another possibility is implementation of a UK Trident life extension program-me, similar to the US Stockpile Life Extension Programme. In this context, the Defence Select Committee's recommendation – "that the government, now rightly thinking (if not yet forming policy) for the period of 30 years ahead, needs to address this issue more squarely"59 – must be taken up by the Government.

2.5 Trident: a US missile system

Since the 1960s Britain has procured strategic nuclear systems from the US rather than developing indigenous nuclear forces. This dependence was highlighted most spectacularly in the early 1960s, when the United States unilaterally cancelled the Skybolt missile, a nuclear-armed missile that MacMillan's Conservative Government had intended to procure. Successive UK governments have been keen to avoid such a situation arising again, and have therefore sought to remain closely in step with US nuclear technology developments.

When the Thatcher Government originally decided to procure the Trident I C4 missile in the early 1980s, its objective was to achieve "maximum commonality with the United States". 60 At that time, it also acknowledged that the United Kingdom last had a major capability in the field of ballistic missiles in the 1960s and that to re-acquire it "would be very expensive, take a long time and involve much uncertainty".61

Following the US Government's announcement to proceed to full development of a Trident II D5 missile in 1981, the UK Government also switched to the D5 missile in order to avoid the "penalties of uniqueness" – that if the United Kingdom continued with the C4 missile it might have to cope "without the benefit of detailed United States advice".62 As a result, Britain's Trident submarines use US Trident II D5 missiles produced and serviced in the United States by Lockheed Martin. The United Kingdom does not actually own the missiles, but has access to a pool of Trident II D5 missiles held at the Strategic Weapons facility at the Kings Bay Submarine Base, in Georgia, US. The British Trident submarines conduct missile test firings at the US Eastern Test Range, off the coast of Florida (see table 7).

In operational terms, British Trident submarine patrols are closely coordinated with US Trident patrols. British Trident submarines routinely visit the US Kings Bay submarine base and US Trident submarines have visited the British Trident base at Faslane.

Table 7: British Trident missile tests at the US Eastern Test Range

Submarine	No of Tests	Date
HMS Vanguard	2	May and June 1994
HMS Victorious	2	July and August 1995
HMS Vigilant	2	October 1997
HMS Vengeance	1	September 2000
Future planned tests	7	
Total UK Missile Tests	**14**	

Source: Official Report, House of Commons, 30 Jul 1998, Column 448

As it shares the US Trident II D5 missile pool, Britain is completely dependent on the United States for its Trident ballistic missile procurement, testing and servicing. If it wishes to retain Trident, the UK Government therefore has little choice but to accept whatever developments the United States decides to pursue for the future of its Trident missile forces.

2.6 Britain and NATO/US nuclear doctrine

British nuclear policy is closely coordinated with the United States through NATO. Since the United States originally agreed to sell Polaris to the UK Government under the terms of the 1962 Nassau Agreement and the 1963 Polaris Sales Agreement, Britain's strategic nuclear force has been "committed to NATO and targeted in accordance with Alliance policy and strategic concepts under plans made by the Supreme Allied Command Europe (SACEUR)". 63

These operational arrangements were re-stated in the 1980 and the 1982 exchanges of letters between the United States and Britain, which set out the terms for the UK Government purchase of Trident ballistic missiles and supporting components. According to the 1982 exchange of letters, for example, all British Trident submarines are assigned to NATO to be used for the defence of the Alliance "except where the UK government may decide that supreme national interests are at stake".64

This situation of assigning Trident to NATO had been confirmed in an earlier UK MoD report, which stated that Britain "commits all its nuclear capability to NATO in conformity with concepts of collective deterrence worked out in the joint forum of the [NATO] Nuclear Planning Group".65

Following the election of a Labour Government in 1997, it was reaffirmed again in the 1998 SDR: "Britain's Trident force provides an operationally independent strategic and sub-strategic nuclear capability in support of NATO's strategy of war prevention and as the ultimate guarantee of our national security".66 Thus, British nuclear posture remains grounded in NATO's concept of nuclear deterrence, which in turn is based predominantly on US nuclear doctrine.

NATO nuclear targeting strategy, for example, is carried out in accordance with US nuclear doctrine. NATO still maintains peacetime plans for the use of strategic nuclear weapons assigned to the Alliance, and coordination with US national targeting plans is the responsibility of SACEUR.67

In the 1950s and 1960s, NATO doctrine was based on the US doctrine of Mutually Assured Destruction.68 From 1967 to the early 1990s, NATO doctrine in line with US doctrine was changed to Flexible Response.69 Since the end of the Cold War, as US nuclear doctrine has changed to emphasise deterring the use of weapons of mass destruction, NATO doctrine and British doctrine have also been adapted to give more emphasis to deterrence of weapons of mass destruction.

Most recently, in his February 2001 joint statement with President Bush, Tony Blair gave his backing to the Bush Administration's policy of using "offensive systems", potentially including the use of nuclear weapons, to "deter" WMD threats. Both leaders also agreed to strengthen "counter-proliferation measures".70 Taken together, these statements indicate that British nuclear thinking at the highest level remains closely linked with that of the United States.

Chapter 3:

Courting trouble: legality of the UK Trident programme

3.1 1996 International Court of Justice advisory ruling

In July 1996, in a landmark ruling the International Court of Justice (ICJ) gave an advisory opinion on the "Legality of the Threat or Use of Nuclear Weapons" following a request from the UN General Assembly. The Court was unanimous that "there exists an obligation to pursue in good faith and bring to a conclusion negotiations leading to nuclear disarmament in all its aspects under strict and effective international control". The Court also ruled that any use of nuclear weapons would "generally contravene" the principles

and rules of humanitarian law. The Judges were divided by seven votes to seven on the question of whether "in view of the current state of international law, and of the elements of fact at its disposal, the Court cannot conclude definitively whether the threat or use of nuclear weapons would be lawful or unlawful in an extreme circumstance of self-defence, in which the very survival of a State would be at stake".71

While the then Conservative Government rejected the ICJ Ruling, the new Labour administration initially welcomed the Court's ruling concerning the obligation to pursue nuclear disarmament negotiations in good faith. However, the Labour Government also stated:

*The ICJ opinion does not require a change in the United Kingdom's entirely defensive deterrence policy. We would only ever consider the use of nuclear weapons in the extreme circumstance of self-defence which includes the defence of our NATO allies. The court was unable to conclude definitively whether the threat or use of nuclear weapons would be lawful or unlawful in an extreme circumstance of self-defence in which the very survival of the state would be at stake.*72

Furthermore, in May 2000, all NPT member states, including the United Kingdom, agreed to a Programme of Action on Nuclear Disarmament, including an "unequivocal undertaking by the nuclear-weapon states to accomplish the total elimination of their nuclear arsenals leading to nuclear disarmament to which all States Parties are committed under Article VI" (see appendix 1).

3.2 The impact of 'People's Disarmament'

Following the ICJ Ruling, the legality of British nuclear policy has been challenged in the British courts and through non-violent actions against the Trident programme. In particular, the Trident Ploughshares campaign was established in 1998 with the aim of pushing "the British Government into abiding by the Advisory Opinion of the International Court of Justice of 8 July 1996 that decided that the use or threatened use of nuclear weapons is generally illegal under international law because of the unique, indiscriminate and long-lasting damage their use would inflict on civilians and the global environment".73 By August 2001, 179 people signed the Trident Ploughshares pledge to "to disarm the UK Trident nuclear weapons system in a non-violent, open, peaceful, safe and fully accountable manner".74

Trident Ploughshares has had some notable successes. In October 1999, for example, Sheriff Margaret Gimblet instructed the jury at Greenock (Scotland) Sheriff Court to acquit three women, Angie Zelter, Ellen Moxley and Ulla Roder, who had been charged with causing £80,000 worth of damage to Maytime, a Trident-related acoustic research barge in Loch Goil, during a Ploughshares 2000 disarmament action in June of that year. Addressing the jury, the Sheriff said:

*I have to conclude that the three in company with others were justified in thinking that Great Britain in their use of Trident... could be construed as a threat and as such is an infringement of international and customary law. I have heard nothing which would make it seem to me that the accused acted with criminal intent.*75

As a result of this case, the Lord Advocate asked the Scottish High Court to examine some of the legal issues. Scotland, where Trident is based, has its own distinct legal system and, since 1999, a new parliament with increased control over Scottish affairs. Although the Opinion of the High Court was that it was "not persuaded that the facts of what the respondents did, or anything in the nature or purposes of the deployment of Trident, indicate any foundation at all, in Scots or in international law, for a defence of justification,"76 Trident Ploughshares is attracting strong support from the Scottish public.

A recent opinion poll in Scotland, for example, showed that 51 per cent of those questioned supported the Trident Ploughshares blockade of the Trident base at Faslane on 12 February 2001. In addition, on 23 May 2001, the Church of Scotland debated Trident

and re-affirmed “the sustained op-position of the Church to the possession, deployment and threatened use of nuclear weapons”. The Church called “once more on HM Government to abandon the Trident Programme now”, and encouraged “all those who, on conscientious grounds, seek to express their personal opposition to Trident through peaceful and non-violent means”.77

On 4 October 2001 Trident Ploughshares achieved its most notable success outside of Scotland at the trial of Trident disarmers Rosie James and Rachel Wenham at Manchester Crown Court. The two campaigners were standing trial for damaging testing equipment on HMS Vengeance in February 1999. However, the couple were discharged when the jury could not reach a verdict on the charge of criminal damage against them and the prosecutor confirmed that the Crown would not seek a retrial.78

To date the UK government has never engaged in international negotiations to reduce its nuclear forces. As the next chapter reports, new opportunities have been presented in the last year, including the agreement of the Programme of Action for Nuclear Disarmament at the 2000 NPT Review Conference and the proposal by President Putin for five-power talks on nuclear disarmament.

Since the ICJ ruling, the UK government now has a legal “obligation to pursue in good faith and bring to a conclusion negotiations leading to nuclear disarmament in all its aspects under strict and effective international control.” Unless progress is made in the course of the next Parliament, the legal case of the Trident Ploughshares protestors can only be strengthened.

Chapter 4:

The impact of Bush Administration policies on the UK nuclear policy

4.1 Introduction

Ties between Washington and London run deep on a number of issues, but nowhere is this more apparent than in the field of nuclear policy. The UK’s Trident nuclear deterrent is a de facto US system and London relies upon the goodwill of Washington for its upkeep. For a number of decades this arrangement has served successive British governments well. As Washington’s strongest European ally, the United Kingdom was able to enjoy the benefits of technology and intelligence sharing with few negative consequences. However, the current Republican administration is showing clear signs that it plans to radically alter the size, composition and the role of its nuclear arsenal, a shift that it likely to impact heavily on UK nuclear policy.

Many of the nuclear-related policies that the United States are pursuing challenge the existing status quo between the two allies. Some of these emerging strategies, including deep cuts in its nuclear arsenal, offer the UK Government an opportunity to dramatically advance the cause of nuclear disarmament. Other policies, including those that challenge the existing ‘treaty-based’ framework of international arms control and a more aggressive nuclear posture, conflict directly with the Labour Government’s stated policy commitments. Finally, other planned or actual US programmes relate directly to the Trident system itself, and raise questions about the future of the UK deterrent.

4.2 A radical reduction to US nuclear forces?

Currently, the US strategic nuclear arsenal consists of 7,150 warheads spread across the air- land- and sea-based legs of its nuclear triad. In addition, the United States maintains around 1,600 inactive strategic warheads as both a “hedge” to permit a rapid increase in deployed weapons, and an arsenal of 1,670 sub-strategic, or tactical, nuclear weapons, designed for use in limited non-global conflicts.79 The number of deployed warheads will have been reduced to 6,000 by the end of 2001 in compliance with START I. However, the Bush administration is committed to going beyond these levels; deep unilateral cuts in the

US nuclear arsenal are a key component of its security policy. President Bush has stated that he is committed to "achieving a credible deterrent with the lowest-possible number of nuclear weapons consistent with our national security needs, including our obligations to our allies".80

Deep cuts to the US arsenal will earn the Bush administration a great deal of praise, in particular from European allies who have been raising strong criticisms of Washington's unilateralist agenda. This will no doubt give Washington an easier ride as it attempts to sell other, more controversial aspects of its military policy, in particular missile defence and a shift of strategic emphasis from Europe to Asia.

In addition, certain US military planners feel that much of Washington's vast nuclear arsenal has outlived its usefulness, and is diverting resources away from other technologies more suited to current security threats. In particular, many of the roles the nuclear arsenal was earmarked to perform either no longer exist, or can be carried out through Washington's vastly superior conventional forces. In 1999 Paul H. Nitze, former special advisor to President Reagan, argued that the US military's unrivalled ability to deliver conventional payloads to within "three feet from the expected point of impact" should lead Washington to contemplate complete, unilateral nuclear disarmament.81

The Air Force in particular is becoming increasingly resentful of its nuclear role, arguing that B-1, B-2, and B-52 heavy bombers, which they claim have shown their conventional military relevance in the Gulf War, Yugoslavia and most recently in Afghanistan, should be divorced from their current responsibilities as the airborne wing of the strategic nuclear triad.82 A recent Air Force Academy research paper even suggested scrapping the entire ICBM force, calling the missiles "aging relics of the Cold War".83

Various luminaries of the Cold War build-up have been lining up in recent months to show how far they are willing to go. Prior to returning to the Pentagon as an adviser for the new Bush administration, Richard Perle, former assistant defence secretary under President Reagan, said, "I see no reason why we can't go well below 1,000. I want the lowest number possible, under the tightest control possible".84

4.3 The Nuclear Posture Review

Shortly after entering office, Bush mandated that the secretary of defence conduct a Nuclear Posture Review (NPR) to clarify US nuclear policy for the next five to 10 years. Expected to be completed by 31 December 2001, the review will consider the role of nuclear forces in US military strategy and the requirements for the United States to maintain a safe nuclear deterrent. It is widely believed that the NPR will consider dramatically reducing the US arsenal while ensuring that the process can be halted or reversed at any time.

The first stage of the process is likely to involve the retirement of all 50 MX 'Peacekeeper' missiles, each carrying 500 warheads. However, the warheads are likely to be redeployed on the Minuteman III ICBMs.85 The Review is also likely to involve cutting the Trident nuclear submarine fleet from 18 to 14, in line with the 1994 Nuclear Posture Review, thereby reducing the number of sea-based warheads from 1,680 to 1,300. This reduction would require no alteration to the 1997 PDD 60, which currently informs the US military on targeting of nuclear weapons.86 The FY 2002 budget request included funding to begin retiring the 50 MX missiles and to begin converting two Trident submarines to carry conventionally armed cruise missiles.

On 13 November 2001, President Bush gave the clearest indication yet of the eventual size of the upcoming cuts in the US arsenal. During a press conference to mark the first day of President Putin's visit to the United States, President Bush announced that Washington would unilaterally cut its nuclear arsenal to between 1,700 and 2,200 warheads over the next 10 years. President Putin stated that Russia "will try to respond in kind".87 Some verification procedures are anticipated, possibly carried over from the on-

site monitoring provisions under the START I Treaty.

However, the Bush administration has made clear its strong preference that no mutually binding agreement should be put in place. Critics have pointed out that neither party is compelled to fully carry out the cuts, and that they are reversible.88 Differences between President Putin and President Bush over the necessary level of verification and question of 'irreversibility' were evident during the press conference. President Putin stated:

*'We … are prepared to present all our agreements in a treaty form, including the issues of verification and control'. In contrast, President Bush asserted: 'we don't need . . . arms control negotiations to reduce our weaponry in a significant way'.*89

4.4 P5 Talks: Opportunities for the UK

Radical cuts in the US arsenal are likely to place pressure on the UK government to re-evaluate its own force composition. The UK government has long argued that it maintains the minimum nuclear arsenal concurrent with its own defence needs. However, it has also stated that if significant steps were taken by the other nuclear powers, it would lead to a reappraisal of this assessment. According to the Strategic Defence Review: "Our own arsenal… is the minimum necessary to provide for our security for the foreseeable future and very much smaller than those of the major nuclear powers. Considerable further reductions in the latter would be needed before further British reductions could become feasible" [emphasis added].90

Deep unilateral cuts in the US arsenal, if reciprocated by Russia, could set in motion a chain of events that might lead to the 'considerable further reductions' mentioned in the Strategic Defence Review. This would present the UK Government with an ideal opportunity to broaden the process, possibly acting upon the suggestion for five-power nuclear disarmament talks recently made by the Russian president, Vladimir Putin.

On 13 November 2000, Putin reiterated Moscow's proposal to undertake negotiations with the United States, with a view to "achieving radically reduced levels of 1,500 nuclear warheads for our countries, which is quite realisable by the year of 2008".91 In July 2001, the Russian Ministry of Foreign Affairs again took up the issue and signalled Moscow's intention to pursue consultations on the questions of deep strategic arms reductions through the UN Security Council (see box 2). The idea has also received the support of France. Speaking in August 2001, President Jacques Chirac, stated:

> (G)oing beyond the efforts to prevent proliferation and maintain the role of deterrence I have already talked about, several aspects have to be taken into consideration. I am thinking particularly of the ABM treaty, the need for a greater effort on the nuclear disarmament front on the part of the United States and Russia, and preventing the militarization of space. … France… considers that the idea of launching consultations on these issues between the five nuclear powers is worth considering.92

It has long been assumed that when the time comes to expand the disarmament process beyond the United States and Russia, the United Kingdom would need to take a prominent place in the negotiations. In the run up to the 1995 NPT Review Conference, for example, rumours circulated that the United States was pressuring the United Kingdom to place its arsenal on the negotiating table in an effort to guarantee the indefinite extension of the treaty. At that time the Foreign Office stated "if there was a continuing reduction of strategic weaponry following treaties beyond the Start agreement, the point might come where we put ours into the equation".93

Both Russia and the United States have indicated that the will significantly cut the size of their nuclear arsenals in the next ten years. As possibly the most progressive of the five nuclear powers in the field of arms control at present, the UK Government is uniquely placed to take a decisive role in widening and institutionalising this process. Support for the Russian proposals could put pressure on Washington to make some effort to formalise its reductions, and to set up some effective measures of transparency and irreversibility,

even if a return to the START process seems unlikely.

Meanwhile, reciprocal cuts on the part of the United Kingdom could pave the way for simultaneous talks by all five declared nuclear powers.

Box 2: Russian proposal for P5 Talks

"The gist of the proposal is that the five nuclear states which are permanent members of the UN Security Council, bearing in accordance with the United Nations Charter special responsibility for the ensuring of strategic stability, should institute and commence a permanently operating consultation process on the problems of strategic stability within the Five. In practical terms it is planned, among other things, to submit for the discussion of the Five our proposal for further drastic reductions in the strategic offensive arms of Russia and the USA to a level of 1,500 warheads [and below] for each of the parties...under the strict control provided by the agreements START I and START II. As a result of those Russian-American reductions, by our estimates, the aggregate number of nuclear warheads of the five nuclear powers would not exceed 4,000 after the year 2008. It is currently on the order of 14,000 nuclear warheads on the strategic carriers of all five nuclear countries. We hope, of course, that the other members of the nuclear club - Britain, France, and China - also will continue to show restraint in the nuclear field".

Source: 'Interview granted by Alexander akovenko, the Official Spokesman of Russia's Mi nistry of Foreign Affairs, to Interfax News Agency in Connection with the New Russian Strategic Stability Initiative, July 6, 2001', Russian Foreign Ministry transcript, Document 1288-06-07-2001, July 6, Disarmament and Diplomacy, Issue Number 59 July/August 2001.

Chapter 5:

The disintegration of multilateral arms control

5.1 The new Republican orthodoxy

In the wake of Bush's presidential victory, a unilateralist, 'America First', ideology has taken hold in the White House. This approach to international affairs is shaped by two themes that dominate current Republican policy-making: a deep opposition to international treaties and a desire to maintain the US's position as the dominant world superpower. These two pressures are driving US arms control policy in a way that indicates a direct collision course with UK priorities.

A deep-seated opposition to international treaties has long been a hallmark of Republican thinking. In recent years such opposition has become even more entrenched. For example, as Chair of the Senate Foreign Relations Committee from 1995 to 2001, Republican Senator Jesse Helms was able to block and delay US ratification of a long list of treaties. Passage of the Convention on the Rights of the Child, the Land Mines Convention, the Rome Statute for an International Criminal Court, the Chemical Weapons Convention and the Comprehensive Test Ban Treaty were all hindered by Helms' sizeable control over US foreign policy.94

Helms' belief that other countries cannot be trusted to uphold their commitments, and that Washington is better off guaranteeing its own best interests without recourse to mutually binding agreements, is shared by many in the current administration. A key example is the under secretary of state for arms control and international and security affairs, John Bolton. Prior to entering the Bush administration, Bolton stated that, "While treaties may be politically or even morally binding, they are not legally obligatory. They are just not law as we apprehend the term".95

Since coming to power the Bush administration has repeatedly either refused to join international treaties, or watered them down to fit its own purpose. This approach was evident in the administration's handling of the Kyoto Protocol and the UN Conference on Small Arms in July 2001, to give but two examples. The Bush administration has also rejected negotiations for a verification protocol to the Biological and Toxin Weapons

Convention.96 According to Richard Butler, former Australian Ambassador to the UN, "The administration seems to believe that international agreements will increasingly pressure the United States to sacrifice its sovereignty and become subject to direction by international institutions".97

The belief that the United States needs to maintain its pre-eminent position in the world can be seen in the work of the right-wing Project for a New American Century (PNAC). Founded in 1997, PNAC is a "non-profit, educational organization whose goal is to promote American global leadership". The Project argues that the United States must do all it can to retain its position as the sole global superpower, and guard against the possible emergence of a future great power rival.98 A recent report by the PNAC states: "At present the United States faces no global rival. America's grand strategy should aim to preserve and extend this advantageous position as far into the future as possible".99 The defence secretary, Donald Rumsfeld, the deputy defence secretary, Paul Wolfowitz, and the vice president, Dick Cheney are all signatories of the PNAC's 1997 Statement of Principles.100

One report that is believed to have played a decisive factor in shaping the Bush administration's agenda on international arms control and other nuclear policy issues is the National Institute for Public Policy (NIPP) report, Rationale and Requirements for U.S. Nuclear Forces and Arms Control, published in January 2001. The report argues that to ensure the ongoing value of its nuclear force the United States must "preserve its capability to adapt". This ability is said to be contrary to the fundamental principles of existing arms control agreements like START and the CTBT: "Further adjustment to the U.S. strategic forces must not be rendered practically or legally 'irreversible' via codification in the traditional arms control process".101 The report also recommends increasing the role of nuclear weapons in targeting hardened and deeply buried targets.

The NIPP report is believed to be particularly influential on thinking within the Bush administration, and several of its authors have gained key positions within the administration. Stephen J. Hadley, the deputy national security adviser; Stephen Cambone, a special assistant to Donald Rumsfeld; Robert Joseph, a National Security aide overseeing counter-proliferation; and William Schneider Jr., who informally advised Donald Rumsfeld during the transition all signed the main proposals of the report. During recent Senate testimony, Admiral Richard W. Mies, the then commander in chief of US Strategic Command, paid tribute to the findings of the NIPP Report, calling it "a good blueprint to adopt".102

Another worrying development is the extent to which the Bush administration, in particular the secretary of defence, Donald Rumsfeld, is keen to pursue the weaponisation of space. On 2 May 2001, Rumsfeld stated: "There is no question but that the use of land and sea and air and space are all things that need to be considered if one is looking at the best way to provide the kind of security from ballistic missiles that is desirable for the United States and for our friends and allies" [emphasis added].103 Although the 1967 Outer Space Treaty prohibits the stationing of weapons of mass destruction (including nuclear weapons) in space, there are many advisors within the US administration who are advocating that nuclear weapons be used as part of possible future missile defence systems.104

Such a move would become easier for Washington to implement if it succeeds in removing the obstacle of the Anti-Ballistic Missile Treaty. US plans for the weaponisation of space have provoked opposition and concern, not just from countries such as Russia and China, but also from US allies including France.105

In the wake of the 11 September terrorist attacks the United States may be forced to revise this unilateralist approach to international relations. Washington's attempt to build a global alliance against the threat of world terrorism may lead advocates of a more multilateralist agenda within Congress and the White House to gain the upper hand. In

spite of this, however, in the short-term at least there remains clear evidence that US nuclear arms control policy has been set on an inevitable collision course with that of the United Kingdom.

Key areas where the UK Government will have difficulty reconciling its own policy commitments and the priorities of its supporters and back-benchers, with its need to maintain close ties with Washington, include the Non-Proliferation Treaty (NPT) and the Comprehensive Test Ban Treaty (CTBT).

5.2 Nuclear non-proliferation regime in jeopardy

In May 2000, the Nuclear Non-Proliferation Treaty (NPT) review conference developed a comprehensive document outlining general commitments to tighten controls on nuclear weapons and further disarmament. This agreement of a nuclear disarmament plan of action included the landmark goal of an "unequivocal undertaking by the nuclear-weapon states to accomplish the total elimination of their nuclear arsenals". In particular the international delegations put together a package of 13 "practical steps for the systematic and progressive efforts to implement Article VI of the Treaty" (for the full list of all 13 steps, see Appendix 1). Article VI of the NPT states:

> Each of the Parties to the Treaty undertakes to pursue negotiations in good faith on effective measures relating to 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.106

Since taking office, the Bush administration has publicly stated its commitment to the NPT process. For example, the Final Communiqué of the May 2001 NATO Foreign Ministers meeting in Budapest stated: "We reaffirm our determination to contribute to the implementation of the conclusions of the 2000 NPT Review Conference".107 In addition, a joint communiqué issued by President Putin and President Bush on 13 November committed the US to take "efforts to strengthen the Nuclear Nonproliferation Treaty".108 However, it seems that the Bush administration wants to pick and choose which NPT commitments it will uphold and which it will ignore. In spite of its promises, the activities of the Bush administration have brought into question Washington's dedication to upholding its obligations. In particular, the US Government has been pursuing various policies that directly conflict with the 13 commitments made in New York. As the first PrepCom for the 2005 NPT review conference approaches in 2002, concern is growing that the consensus achieved at the 2000 review conference may be hard to reproduce. The US response to three commitments in particular illustrate the difficulties ahead:

Commitment: "The early entry into force and full implementation of START II and the conclusion of START III as soon as possible while preserving and strengthening the ABM Treaty as a cornerstone of strategic stability and as a basis for further reductions of strategic offensive weapons, in accordance with its provisions."

Implementation of START II is currently stalled due to complicating measures by the Russian Duma, which ratified the treaty in May 2000 but linked entry into force to US Senate approval of auxiliary ABM Treaty agreements drafted in 1997. However, the Bush administration has indicated it will not be pursuing the ratification of START II and is not seeking to continue the START process. While the Bush administration does intend to fulfil its obligations under START I, it wishes to pursue further reductions to the US arsenal without recourse to legally binding, bilateral treaties with Russia. The under secretary of defence for policy, Douglas Feith, noted in September 2001:

> The kinds of agreements that we made with the Soviet Union in the Cold War are just not necessary, in our view, between the United States and Russia, which are countries that are not hostile to one another. We don't need to try to preserve a balance of nuclear terror.109

The chances of "preserving and strengthening the ABM Treaty" are essentially non-

existent at present. The Bush administration has made clear it intends to move beyond the Treaty's constraints in order to press ahead with the rapid deployment of a missile defence system. Most telling is its current intention to begin work on a new test-bed facility in Alaska in Spring 2002. Some of the facilities being planned – particularly the missile silos at Fort Greely – appear to be designed specifically for a near-term deployment of a rudimentary missile defence system. These facilities would therefore violate the ABM Treaty.110

The important issue is whether the United States will manage to achieve an agreement with Moscow to mutually withdraw from the ABM Treaty. A successful agreement would go a long way towards undermining global opposition towards US missile defence plans, but would still bring into question Washington's commitment to the NPT process.

Commitment: "The principle of irreversibility to apply to nuclear disarmament, nuclear and other related arms control and reduction measures."

Weighing heavily in Washington's current objection to continuing the START process is the extent to which it would render the US defensive posture "inflexible". START I set in place systems of mutual verification whereby the United States and Russia could check that the other side was fully and completely placing its weapons beyond use. While the United States is currently drawing up plans for deep cuts in its nuclear arsenal, it is also keen to ensure that it retains the ability to return to previous force levels should it need to do so in the future.

In recent testimony, Admiral Mies, made the link explicit, stating that:

Our forces structure needs to be robust, flexible, and credible enough to meet the worst th*reats we can reasonably postulate. These principles weigh heavily against continuing the traditional, bilateral, Cold War approach to arms control.*111

The Bush administration may use the proposed cuts in its arsenal to argue that it is living up to its disarmament commitments. Indeed, one of the other commitments agreed at the 2000 review conference was for nuclear weapon States to undertake further efforts to reduce their nuclear arsenals unilaterally. However, in the absence of a recognised formula of verification and irreversibility, such as that laid out in the START process, the proposed cuts will have difficulty fitting in with the traditional concept of arms control and disarmament as viewed by the wider international community, and laid down in the text of the NPT.

Commitment: "The importance and urgency of signatures and ratifications, without delay and without conditions and in accordance with constitutional processes, to achieve the early entry into force of the Comprehensive Test Ban Treaty."

In 1999 the Republican controlled Senate rejected US ratification of the Comprehensive Test Ban Treaty (CTBT) by a vote of 51 to 48 in what was a major defeat for President Clinton. Despite regaining control of the Senate, Democrat lawmakers continue to indicate that they lack the political strength to push the issue through. In order for the Treaty to be ratified it requires the approval of two thirds of the Senate.

Both during his election campaign and since entering office, President Bush and his administration have expressed little interest in pursuing treaty ratification. Prior to his election Bush asserted: "We can fight the spread of nuclear weapons, but we cannot wish them away with unwise treaties".112 Moreover, during his confirmation hearing, secretary of defence, Rumsfeld argued that the treaty was essentially flawed, stating that it raised problems with regards to the ongoing reliability of the US nuclear stockpile, and that it was unverifiable. 113

Unable to withdraw the CTBT from the Senate, the Bush administration has instead opted to signal that it has no chance of ratification, thereby forcing others to find alternatives more to Washington's liking.114 On 5 November 2001, for example, the US Government surprised the UN First Committee (Security and Disarmament) by forcing a vote on a simple procedural decision to retain the CTBT on the UN General Assembly

agenda next year. Such decisions are usually treated as formalities and sent forward on the basis of consensus. After forcing the vote, the United States was the sole country to oppose it.115 A US representative stated that, “he had asked for a vote on the decision because his country did not support the CTBT”.116

However, the clearest indication of US opposition on this issue was provided at the CTBT entry into force conference in mid November 2001.117 Prior to the conference, news reports were suggesting that the administration was divided between those in the Pentagon who favoured boycotting the conference completely, and those in the State Department who wanted “to send a ‘fairly junior’ U.S. diplomat to the conference to air U.S. objections to the treaty”.118 In the end, the United States boycotted the conference, despite the presence of Secretary of State Colin Powell and other senior officials at other meetings in the UN over the same time period.119

Washington’s decision not to attend the Conference serves to further underline the Bush administration’s opposition to the CTBT and raises serious questions about the Treaty’s future health. Nonetheless the Conference was attended by 108 states signatories to the Treaty and concluded a final declaration in which member states of the Conference stressed their “determination to strengthen efforts aimed at promoting the Treaty’s entry into force at the earliest possible date” and affirmed that “the conduct of a nuclear-weapon-test explosion or any other nuclear explosion constitutes a serious threat to global efforts towards nuclear disarmament and non-proliferation”.120 (See appendix 2 for further details of the final declaration from the conference.)

The Bush administration has stated that it intends to uphold the testing moratorium put in place in 1992. However, the wider international community is unlikely to see this as a substitute for ratification of the Treaty. In his report on the issue, General John M. Shalikashvili (Ret.), made the point clear:

> A prolonged moratorium would do less damage to U.S. non-proliferation objectives and diplomatic standing than would a resumption of nuclear testing, but most of the benefits that the Test Ban Treaty can provide would be lessened or lost without ratification.121

There are various indications that the current testing moratorium will not last forever. In June 2001, deputy defence secretary, Paul Wolfowitz, raised the possibility of circumstances in which the United States would contemplate resuming nuclear testing: “Well, there may be circumstances where particularly if we develop questions about the reliability or safety of our nuclear weapons where you would have to contemplate doing that”.122 Meanwhile, General John Gordon, head of the National Nuclear Security Administration (NNSA) – a division of the Department of Energy – informed Congress that he is looking hard at “improving test site readiness”.123 The NNSA’s responsibilities include “(maintaining and enhancing) the safety, reliability, and performance of the United States nuclear weapons stockpile, including the ability to design, produce, and test”.124

The Bush administration proposed in its FY 2002 budget request that the readiness period for the Nevada test site be shortened immediately to 18 months, but it was understood that this could be further reduced to six months. However, the House Appropriations Committee barred any funds “to increase the readiness for underground nuclear testing” in its energy and water appropriations bill. Currently the Energy Department needs two to three years to prepare for a nuclear test at the Nevada Test Site.

Another worrying indication of Washington’s disdain for test ban efforts were recent news reports suggesting that the US Government was privately telling China that it would not object to future increases in their arsenal should Beijing drop its opposition to missile defence. Despite official denials, it was hinted that the two countries might cooperate in an attempt to undermine the CTBT and resume nuclear testing.125

The threat posed to the NPT by the Bush administration’s arms control policies was highlighted during the confirmation hearing of Under Secretary of State John Bolton in

May 2001. Senator John Kerry made the link between Bolton's opposition to arms control and the future health of the NPT:

His antagonism to arms control threatens the Nuclear Non-proliferation Treaty (NPT), a cooperative, verifiable agreement that has effectively kept the nuclear weapons club to very low numbers for more than three decades span. But future international participation in the NPT is inextricably tied to the stability of treaties that Mr. Bolton has condemned.126

The Bush administration may wish to preserve the NPT in some form, especially as it helps to maintain the existing status quo regarding the nuclear 'haves' and 'have-nots' in the world. However, failure on the part of the United States to make good on commitments made during the 2000 NPT review conference put the future survival of the treaty in jeopardy. As the first PrepCom for the 2005 re-view conference approaches, many countries will be asking themselves whether Washington is truly committed to living up to its disarmament obligations.

5.3 Implications for UK nuclear policy

The Labour Government clearly values the security provided by the NPT and the CTBT. A strong supporter of treaty-based forms of security, the Labour Government worked hard during its first term to achieve international consensus on the 2000 NPT Disarmament Plan of Action and to encourage ratification of the CTBT. This is reflected in the Labour Party's 2001 election manifesto, which reads:

The Nuclear Non-Proliferation Treaty commits us to work for the global elimination of nuclear weapons. We are enthusiastic signatories to the Comprehensive Test Ban Treaty, whose coming into force will impede nuclear proliferation.127

The UK Government is also widely credited with having played a positive role in ensuring the successful outcome of the 2000 NPT review conference. In July 2000 the UN under-secretary-general for disarmament affairs, Jayantha Dhanapala, praised UK efforts stating:

I salute these achievements of the government and civil society of this great nation who are responsible for them. With this deep wellspring of support, Britain will undoubtedly continue to demonstrate its independence, its leadership, and its determination to ensure that the noble words of the NPT and the Final Document of its last Review Conference are translated into concrete deeds.128

Along with France, the United Kingdom was the first of the nuclear-weapon states to ratify the CTBT on 6 April 1998. At that time the then UK Foreign Secretary, Robin Cook, stated that ratification of the CTBT signalled Britain's "commitment to the goal of a nuclear weapons free world".129 The UK Government has also made significant steps in working to convince other countries to sign and ratify the treaty. In 1999 Tony Blair wrote a joint article with French President, Jacques Chirac and German Chancellor, Gerhard Schröder urging US Senators to support ratification. The letter claimed that: "Failure to ratify the Comprehensive Test Ban Treaty will be a failure in our struggle against proliferation" and went so far as to state that "Rejection would also expose a fundamental divergence within NATO".130

Moving ahead with multilateral disarmament measures is an issue that enjoys the broad support of both the UK Parliament and the general public. In October 1999 an Early Day Motion tabled by Malcolm Savidge, MP, urging the UK Government to put further pressure on the US Senate to ratify the CTBT was signed by 359 MPs. Signatories included both Labour and Conservative former Cabinet Ministers. The text of the motion read:

That this House expresses grave concern at the US Senate's rejection of the Comprehensive Test Ban Treaty; fears this could undermine nuclear non-proliferation; urges Her Majesty's Government to make further representations to the UK's American allies to this effect; and hopes that the Senate will reconsider this decision.131

An opinion poll carried out by MORI in February 1999 found that 68 per cent of the UK

public either agreed or strongly agreed with the following statement: “I would think more highly of the Prime Minister, Tony Blair, if he were to take a lead in negotiations to remove nuclear weapons worldwide”.132

However, since President Bush entered the White House, the Labour Government has taken an increasingly passive line regarding Washington’s effort to live up to its disarmament commitments. The Labour Party manifesto for the 2001 election simply states: “We are enthusiastic signatories to the Comprehensive Test Ban Treaty, whose coming into force will impede nuclear proliferation” but makes no mention of its attitude towards US ratification.133

Ongoing speculation that Washington may attempt to precipitate the collapse of the CTBT and a lack of movement in the commitments made at the 2000 NPT review conference pose grave threats to global nuclear non-proliferation and disarmament efforts. If the United Kingdom is to ensure the survival of these treaties, whose existence it fought so hard to achieve, it would be wise to make more use of what influence it does have to urge the United States to adopt a more progressive line.

Chapter 6:

Towards a more aggressive US nuclear posture

6.1 Introduction

US nuclear posture includes both the option of nuclear first use and the targeting of non-nuclear weapon states. In late 1997 President Clinton issued PDD 60, giving guidelines to the US military on targeting of nuclear weapons. PDD 60 reportedly extended the role of US nuclear weapons to include deterring potential proliferators of weapons of mass destruction.134 Under pressure from the United Sta-tes, both the 1998 UK Strategic Defence Review and the 1999 NATO Strategic Concept appear to have fallen into line with the policies laid out in PDD 60.

A number of recent reports indicate that the United States is considering options designed to expand the range of missions for its nuclear arsenal. In particular, influential planners are advocating the use of nuclear warheads for tackling hardened, deeply buried targets, and widely dispersed mobile missile launchers. A growing chorus of planners, often closely tied to the nuclear weapons establishment, are talking up the possibility of developing a range of new, low-yield ‘mini-nukes’ designed to fulfil these roles. This could involve a resumption of nuclear testing.

In addition, the debate regarding the response to the 11 September terrorist attacks has highlighted the question of whether the Pentagon would contemplate the use of nuclear weapons to deter or respond to threats or attacks from terrorists or ‘rogue states’ using chemical or biological weapons. Washington has long maintained a policy of deliberate ambiguity over the targeting of non-nuclear weapons states. An open declaration that it reserves the right to retaliate with nuclear weapons in such circumstances would signify a significant change in policy.

Any shifts towards a more aggressive US nuclear posture will place the Labour Government in an uncomfortable position. In the past, NATO and the United Kingdom have generally replicated changes in US policy. At a time when the legality of its nuclear deterrent is being increasingly questioned, the Labour Government can ill-afford to be forced into signing up to a more aggressive targeting posture.

6.2 New targets, new weapons?

The National Institute for Public Policy (NIPP) report, Rationale and Requirements for U.S. Nuclear Forces and Arms Control, makes a comprehensive set of recommendations concerning the need to expand the range of targets against which nuclear weapons could

be used:

"Conventional weapons … might not be as effective or efficient in neutralizing hardened targets. For example, although conventional weapons could be used to attack the entrances, exits, or "umbilicals" – electrical power, air supply, and communications links – of a deeply buried facility, one or more nuclear weapons might be required to destroy the facility."135

On the question of attacking dispersed mobile missile launchers, the report states:

"If the locations of dispersed mobile missile launchers cannot be determined with enough precision to permit pinpoint strikes, suspected deployment areas might be subjected to multiple nuclear strikes, driving up U.S. requirements."

The targeting of hardened facilities or mobile missile launchers is an example of what the report describes as a "counterforce" targeting strategy. In addition the report speaks of the need to maintain a "countervalue" targeting strategy, aimed at "deterring or coercing an opponent through the threat of punishment". "Countervalue attacks are conducted against societal targets of a hostile state – for example, its major industries, population centers, and elements of the governmental apparatus".

Other advocates of the need to develop new 'low yield' nuclear devices for attacking hardened and deeply buried targets include policy makers from within the US nuclear weapons establishment. Paul Robinson, director of the Sandia National Laboratories, argued in an interview in September 2001 that conventional weapons have proved deficient in handling hardened and mobile targets in recent conflicts. If the United States is to prevail in similar situations in the future, he argues that it will have to make use of low-yield nuclear warheads:

We've seen examples as recently as the [1999] air war with Serbia, when we attacked underground targets with conventional weapons with very little effect. It just takes too many aircraft sorties and conventional weapons to give you any confidence that you can take out underground bunkers. By putting a nuclear warhead on one of those weapons instead of high explosives, you would multiply the explosive power by more than a million.136

Robinson is chairman of the policy subcommittee of the Strategic Advisory Group, a panel that advises the commander of US Strategic Command. Senior Bush administration officials have reportedly embraced many of Robinson's ideas.137

Former deputy director of Los Alamos National Laboratory, Stephen Younger, is another strong advocate of developing new types of nuclear weapons. His paper, 'Nuclear Weapons in the 21st Century', published in June 2000, argues that nuclear warheads provide the only reliable means of tackling hardened missile silos and deeply buried command bunkers. Younger also states that precision targeting could greatly reduce the nuclear yield required to destroy such targets whilst only relatively few targets require high nuclear yields.138 Younger has since been named head of the Defence Threat Reduction Agency.

Both of these suggestions and those of other like-minded analysts have one goal in common: to overturn the 1994 legislation prohibiting research and development of precision nuclear weapons of less than five kilotons in order to open the way for research into a future generation of weapons.139 Two Republican senators inserted a provision into the 2000 Defence Authorization Bill requiring the Defence and Energy Departments to work together to determine what kind of weapon should be developed to deal with hardened and deeply buried targets. The report will be submitted to Congress by the end of 2001, possibly as part of the Nuclear Posture Review.

6.3 Targeting non-nuclear-weapon states

The United States has long maintained a policy of deliberate ambiguity over the question of whether it would retaliate with nuclear weapons to a chemical or biological weapons

attack. On the one hand, Washington has made negative security assurances stating that it will not use nuclear weapons against those countries that do not have nuclear weapons and are not fighting with the support of those that do. Most recently, the US Government issued negative security assurances in the run up to the 1995 NPT review conference.

At the same time, past statements by US defence officials imply that the United States reserves the right to use nuclear weapons in response to a chemical or biological weapon attack. In 1996, for example, the then secretary of defence, William Perry, told Congress that Washington would use nuclear force if necessary to respond to a chemical weapons attack: "the whole range (of responses) should be considered – precision guided munitions, Tomahawk land-attack missiles – and then we have nuclear weapons".140 Similarly, during the Gulf War President Bush wrote a letter to Saddam Hussein clearly implying that if Iraq were to use chemical or biological weapons against the forces of the US-led coalition, Washington would not refrain from unleashing a nuclear response.141

For some time influential policy makers have been arguing that the United States needs to move away from this policy of ambiguity and adopt a more explicit stance regarding this question. Michael O'Hanlon, senior fellow in foreign policy studies at the Brookings Institution, argued that the increasing spread of biological weapons is a threat that can only be countered by adopting a clear policy of responding to any attack with nuclear weapons:

> Making the possibility of such a response known in advance, as it did before Operation Desert Storm, could also have deterrent benefits. It could discourage a foe from the belief that by threatening to use weapons of mass destruction against U.S. forces it could keep the casualty-averse United States from responding to its aggression.142

The 2001 NIPP Report goes one step further, advocating the use of nuclear weapons to deter "WMD or massive conventional aggression by an emerging global competitor".143

In the wake of the 11 September terrorist attacks, the question of whether nuclear weapons have a role to play in responding to chemical or biological weapons attacks has resurfaced. According to a recent Washington Post report, "Conservatives outside the administration have been calling on the administration to make an explicit threat to use nuclear weapons to respond to a biological or chemical attack". David Smith, a defence consultant and co-author of the NIPP report, stated:

> September 11 really underscores the need to look at a full range of flexible options … What we were trying to get at there is we don't believe the current arsenal of the United States is persuasively deterrent to all comers.144

These arguments over targeting and responding to chemical and biological weapons represent one side of an ongoing debate concerning the future role of the US nuclear arsenal. Many other analysts have argued that Washington's lead in the field of increasingly accurate conventional military munitions, the so-called 'revolution in military affairs' (RMA), will mean the United States will have less need for nuclear weapons over the next few decades.145 Partly in response to this RMA, there was a general de-emphasis on the role of nuclear weapons in US national security policy during the 1990s. The 1997 PDD, for example, reportedly concluded that, "nuclear weapons now play a smaller role in our nuclear security strategy than at any point during the nuclear era".146

By advocating the need for nuclear weapons for tackling hardened and dispersed targets, or to deter or respond to chemical and biological weapons, military planners are seeking to reverse this trend, and place nuclear weapons back at the centre of US strategic thinking. With the upcoming NPR and the aftermath of the September 11 terrorist attacks, advocates of a more aggressive nuclear posture may have their opportunity.

When asked to comment on the possibility of nuclear weapons having a role to play in the military response to 11 September, secretary of defence Donald Rumsfeld refused to be drawn, stating only:

> (If) you think of the loss of human life on Tuesday, and then put in your head the

reality that a number of countries today have other so-called asymmetrical threat capabilities – ballistic missiles, cruise missiles, chemical weapons, biological weapons, cyber warfare – these are the kinds of things that are used in this era of the 21st century. And a germ war-fare attack anywhere in the world would bring about losses of lives not in the thousands but in the millions.147

6.4 Implications for UK nuclear policy

The strong indications that the Bush administration is undertaking a shift in nuclear policy that could dramatically lower the threshold for nuclear use suggests a probable collision course with UK policy priorities. While the UK Government remains ambiguous on the question of first use, and the targeting of non-nuclear weapon states in retaliation for attacks from biological or chemical weapons, it has long sought to distance itself from the idea of using low-yield warheads to target deeply buried and hardened targets. In his 1993 keynote speech on nuclear weapons policy after the Cold War the then secretary of state for defence, Malcolm Rifkind, laid out the UK government's position:

There is sometimes speculation that more so-called "usable" nuclear weapons – very low-yield devices which could be used to carry out what are euphemistically called "surgical" strikes – would allow nuclear deterrence to effective in circumstances where existing weapons would be self-deterring. I am thoroughly opposed to this view. The implications of such a development of a new war-fighting role for nuclear weapons would be seriously damaging to our approach to maintaining stability in the European context, quite apart from the impact it would have on our efforts to encourage non-proliferation and greater confidence outside Europe. This is not a path that I would wish any nuclear power to go down.148

Similarly, in its submission to the International Court of Justice in 1995, the UK Government argued that its nuclear weapons policy would not contravene international law on the grounds that:

Modern nuclear weapons are capable of far more precise targeting and can therefore be di*rected against specific military objectives without the indiscriminate effect on the civilian population which the older literature assumed to be inevitable. Moreover, the United Kingdom's and NATO's current doctrine emphasizes that nuclear weapons would only ever be used in a defensive role and that the threat posed by an aggressor which would invite a nuclear response would be of a scale which would make that nuclear response proportionate. …*

*So far as the principle of proportionality is concerned, it is often assumed both that any use of nuclear weapons would cause extensive civilian losses and that such losses would necessarily be excessive in relation to any military advantage which might result. These assumptions tend to be based on assessments of the likely effects of a nuclear attack on or near a city. The reality, however, is that nuclear weapons might be used in a wide variety of circumstance with very different results in terms of likely civilian casualties. In some cases, such as the use of a low yield nuclear weapon against warships on the High Seas or troops in sparsely populated areas, it is possible to envisage a nuclear attack which caused comparatively few civilian casualties.*149

Protection of civilian populations, the need to distinguish between combatants and non-combatants and non-targeting of civilians are important components of international humanitarian law. The use of even a low-yield nuclear weapon against a sparsely populated area would be devastating in terms of the environment, human life, and wider non-proliferation efforts. A recent report from the Federation of American Scientists stated that:

No earth-burrowing missile can penetrate deep enough into the earth to contain an explosion with a nuclear yield even as small as 1 percent of the 15 kiloton Hiroshima weapon. The explosion simply blows out a massive crater of radioactive dirt, which rains

down on the local region with an especially intense and deadly fallout.150

The close ties that the United Kingdom retains with the United States, particularly via NATO, would make any shift towards a more aggressive nuclear posture on the part of Washington a very uncomfortable issue to deal with, and would further highlight the conflict between nuclear weapons and international law.

Chapter 7:

The Future of Trident

7.1 Introduction

The United States is currently engaged in a number of programmes designed to extend, improve or, in some cases, radically alter the capabilities of its Trident fleet. In particular the United States is taking steps to enhance the capabilities of the Trident missile, improve the effectiveness of the Trident warhead, and extend the lifespan of the system as a whole while also beginning work on converting at least two of its submarines to conventional use. Given the close cooperation between the US and UK Governments on all aspects of the Trident programme, it is highly likely that the UK Government could also choose to become involved in any, or all, of these programmes.

7.2 Trident warhead development

The United States uses two different warhead types to arm its Trident fleet; the W76 (of which it has approximately 3,200) and the higher yield W88 (of which it has around 400). In contrast, the United Kingdom has only one type of warhead in its nuclear arsenal, which is believed to have been closely modelled on the W76.

With an estimated yield of 475 kilotons – in comparison with the 100 kiloton yield of the W76 – it would be a sizeable, and unlikely, step for the UK Government to contemplate procuring the W88 warhead. However, any improvements that the United States is making to the W76 warhead would presumably be of interest to the UK nuclear weapons establishment.

The US weapons labs have been actively engaged in a range of programmes involving the W76 warhead for a number of years. According to the US Department of Energy the W76 is currently "undergoing development engineering to extend warhead life, refurbish the primary and secondary, add new arming, fuzing and firing system, and add the next generation of advanced reservoir technology".151 In addition, the Department of Energy intends to "work with the Department of Defense to determine a schedule and possibly revised scopes for the W76 refurbishment, pending completion of the Strategic Defense Review".152 According to the UK's AWE, preparations for "refurbishment" of Trident are the subject of "focused exchanges" with the United States. The design of the UK Trident warhead is "always under review".153

There are a number of US programmes in which the United Kingdom may have an interest. For example, the US weapons labs have been working on "refurbishment of the nuclear package and the AF&F [arming, fuzing and firing]".154 This upgrade will give the W76 warhead a "near-ground-burst capability", making them lethal against hardened targets.155 Unless another upgrade is chosen or the programme delayed, the new fuze is slated to begin entering the stockpile in late fiscal 2004.156 Sandia National Laboratory provides the AF&F mechanism used in the British Trident warhead, so US developments in this area would also be of great interest to the UK AWE. Sandia is also involved in a W76-1 development programme.157

All three US weapons laboratories are also engaged in a Stockpile Life Extension Programme (SLEP) for the W76 warhead. The UK's AWE also favours extending the life of its Trident warhead. As the 2000 AWE Annual Report states: "life extension could

offer cost savings by reducing the number of times a warhead is rebuilt within its required full-service life. Continued production of Trident – although only at trickle rates – will enable us to replace the oldest warheads, while exercising and maintaining our assembly capability".158

In addition, the United States has an ongoing Submarine Launched Ballistic Missile Warhead Protection Programme (SWPP) intended to support the current U.S. Navy nuclear weapons stockpile and provide a variety of "future replacement options". The SWPP is described as:

*A collaborative Navy/DOE effort to maintain the capability to jointly develop replacement nuclear warheads for the W76/Mk4 and W88/Mk5 should new warheads be needed in the future…. SWPP is con-centrating on two designs, one near-term and the other long-term. Replacement warheads reflect no new weapon requirements but the desirable replacement characteristics include decreased sensitivity to ageing, increased design margins, increased ability for surveillance by above-ground testing, and the ability to be certified without an underground nuclear test. SWPP may include flight testing of design elements but does not encompass production.*159

AWE Aldermaston is also interested in maintaining the capability to develop a "new weapon should it ever be required".160

7.3 Missiles and re-entry vehicles

The United States is also engaged in efforts to extend the service life, and improve the capabilities of the Trident submarine's warhead delivery system: the D5 missile and the Mk-4 re-entry vehicle.

Originally scheduled to begin retiring in 2019, the existing Trident missile is being upgraded to extend its service life. The upgraded missile, which is considered a "variant" of the existing D5, rather than a new missile, will be designated the "D5A". Funding is expected to begin in 2005, purchase of motors is planned for 2010-2012, and production is expected to start in 2015. Approximately 300 Trident II D5A missiles are planned, enough to arm 10 submarines – a substantial proportion of the US Trident fleet. 161

In addition, a service life extension programme is planned through 2020 for the Mk-4 re-entry body, the system that carries the warheads on both the US and UK Trident systems. The extension programme is designed to ensure that the system can continue to support Trident operations until 2040.162

UK Trident missiles are identical to the US Trident II D5 missiles. The United Kingdom does not actually own the missiles, but as discussed in section 2.4, has access to a pool of Trident II D5 missiles. A similar situation exists for the Mk-4 re-entry vehicles. Lockheed Martin's Missile and Space Operations has manufactured more than 5,000 Mk-4 re-entry body assembly kits for the US and British navies since 1976. 163

As the UK shares the US Trident II D5 missile pool, if a significant proportion or possibly eventually all US Trident submarines are armed with D5A missiles, this may have implications for the UK Trident missiles.

7.4 Trident submarines

In addition to the upgrades to the missile and warhead systems, the US Government is also engaged in an overarching programme to extend the service life of the ships themselves by approximately 12 years. Originally designed to last 30 years, US Trident submarines are now expected to last 42 years. This lifespan will consist of:

two 20-year operating cycles separated by a two-year refueling overhaul. This unprecedented increase in the hull life of a whole submarine class has been made possible by Trident's unique maintenance plan, which includes the regular replacement and overhaul of key components and an intense 35-day refit period following each patrol.164

In addition to extending the lifespan of its Trident system, the US Navy hopes to deploy a new missile submarine class by 2025. Although no submarine class is currently planned, the Navy has called for funding to begin by 2014.165

The UK Government continues to assert that its Trident programme is intended to have a service life of approximately 30 years. However, if Aldermaston is already considering the future of the Trident warhead, any US initiated programme to extend the service life of submarines would be of great interest, as would plans for an eventual replacement.

Initial British Government thinking on a replacement for Trident may already be underway. AWE states that it is maintaining a "capability to design a new weapon should it ever be required". Another possibility is implementation of a UK Trident life extension programme, similar to the US Stockpile Life Extension Programme.

The close collaboration between the US and UK nuclear weapons laboratories indicates a high level of UK interest in current US weapons programmes, especially those concerning the W76 warhead. Given the potential costs involved with life extension, refurbishment and replacement programmes for nuclear weapons, and the UK Government's past record in concealing these developments from democratic scrutiny, the Defence Select Committee's request for a restatement of Government policy on nuclear weapons is extremely timely.

7.5 New roles for Trident: Towards a US sub-strategic Trident

Paul Robinson of Sandia National Laboratories suggests in a recent White Paper that the United States should work to develop a second level of deterrence. This second layer of deterrence – which he terms "Capability Two" deterrence – would consist of lower-yield nuclear weapons and would be used to target and deter what he terms "the non-Russian world". 166

These lower-yield warheads could be used against: "Any nation or (targetable) sub-national entity which, if not otherwise deterred, might be tempted to employ nuclear weapons (or other weapons of mass destruction) against the United States, our forces, or our allies". Robinson asserts that such weapons could be acquired quickly, and without the need for testing, by using "dummy secondaries" to replace the active thermonuclear component in weapons, leaving the weapons' primary, or fission, component as the sole explosive yield.167 In his paper, Robinson pays particular attention to the possible role that Trident submarines might play in fulfilling this "Capability Two" role:

> I think we must contemplate placing some number of single reentry vehicles carrying low-yield weapons on submarine-launched missiles. These, along with cruise missiles from both bombers and submarines, are likely to be the most important weapons in Capability Two because they also allow us to have "forward-basing" in a crisis, again without encountering major overflight difficulties.168

If the US Trident system does adopt a more overt sub-strategic role, this would bring into focus debates over the UK's own sub-strategic capability. Indeed, the developments that Robinson talks about do bear some resemblance to possible options for the United Kingdom to achieve its own sub-strategic capability. However, any comparison between UK Trident's sub-strategic capability and the what Robinson terms "Capability Two" deterrence, with its open talk of targeting non-nuclear weapon states, would be uncomfortable for the UK Government.

7.6 Conventionally armed Trident

The future of the US Navy's nuclear-armed submarine (SSBN) fleet is based on the 1994 Nuclear Posture Review (NPR). The review determined that 14 Trident II D5 SSBNs in two oceans would provide the submarine-launched ballistic missile (SLBM) portion of the deterrent for the foreseeable future. To comply with the 1994 NPR, the Navy has removed its four oldest submarines – the Ohio, Michigan, Florida, and Georgia – from nuclear duty.

Since the decision was made to reduce the US Trident fleet to 14 submarines, interest has grown in the possibility of converting the four SSBNs planned for removal from strategic service into cruise missile submarines (SSGNs). One possibility would involve the submarines carrying six or seven conventional Tomahawk missiles inside 22 of the 24 tubes (the remaining two tubes would be used to support sea-air-land systems (SEALS)). As one expert on naval affairs wrote recently: “The ships have considerable operating life left, and the value of Tomahawk in both small contingency strikes and large-scale campaigns is widely accepted”.169

The Bush administration’s 2002 defence budget included funding to begin converting two Trident submarines to carry cruise missiles. The total cost of the work is estimated at $1.4 billion. The high cost of the conversion is partly due to the restrictions created by the START process. The START Treaty requires that the four potential SSGNs continue to count against strategic arms totals unless all existing launch tubes are removed. Such removal would double the cost of the SSGN conversion.170

If the United States does successfully press ahead with converting part of its Trident fleet to conventional use, the implications for the UK nuclear deterrent are stark. Former Royal Navy Commander Robert Green raised the point recently in an article for Disarmament Diplomacy. Growing US interest in a conventionally armed Trident capability is predicated on a number of factors. Among them is a growing feeling, expressed publicly by President Bush, that nuclear deterrence will not work against what is seen as the greatest threat to Americans: “extremists armed with WMD warheads intent on blackmailing the US”.171

In addition, Green argues that the Pentagon’s ongoing debate over how to destroy hardened and deeply buried targets is increasingly focussing on conventional, as opposed to nuclear capabilities, an area where the United States continues to enjoy capabilities unrivalled by the rest of the world: “For example, the US GBU-37 guided bomb is already thought to be capable of disabling a silo-based intercontinental ballistic missile – a target formerly thought vulnerable only to nuclear attack”.172

Growing doubts about the utility of large nuclear arsenals and a desire to maintain Washington’s superiority in the field of conventional weaponry are leading the Pentagon to utilise the Trident system’s stealth, invulnerability and autonomy for cruise missile use. The potential benefits are illustrated by the fact that a single converted SSBN could fire almost as many Tomahawk missiles as were fired by the US Navy during the Kosovo crisis.

Three of the Royal Navy’s Ship Submersible Nuclear (SSN), or Fleet Submarines, are armed with the US built Tomahawk cruise missile. It was first used during the Kosovo campaign of 1999 and was also used during the US coordinated attacks on Afghanistan on the night of the 7/8 October 2001. Apart from the United States, the United Kingdom is the only country to have access to the Tomahawk cruise missile and is proud of the operational flexibility it provides. The Ministry of Defence boasts that: “The weapon system is highly accurate, capable of delivering a warhead with pinpoint precision and lethality to a carefully selected target hundreds of miles away”.173 According to current thinking within the Royal Navy, deploying Tomahawk cruise missiles on its Trident fleet would give it an unparalleled level of flexibility to pursue the kind of missions that it considers are likely to lie at the heart of most future military operations.

In the face of ongoing challenges to the legality of the Trident system, and its essential impotence in the face of the new security threats of the 21st Century, the possibility of converting some or all of the Trident fleet to conventional use seems, at first glance, to offer the Royal Navy a unique opportunity to adopt a new and more flexible approach. As Robert Green argues:

If the (Royal Navy) wants to stay in the same league as the US Navy, it cannot afford to ignore the option of converting UK Trident to conventional armament – especially as, like the Trident system itself, the research, development and production of the modular

systems would be done in by the US.174

However, while the replacement of nuclear weapons with more conventional weapons may appeal to many former and current military officers, the decision to convert to conventional-armed submarines must be based on a clear definition of Britain's real security needs. There is an increasing tendency to seek rationales for offensive military roles for UK armed forces outside of Europe, even to the extent of assuming a partial return to 'East of Suez' roles abandoned in the 1960s.

While the UK has a strategic and economic interest in maintaining international order and preventing aggression in any part of the globe, the most appropriate responses will increasingly be non-military in nature. There may be times when Britain will want to contribute forces to UN-sanctioned war-fighting forces outside of Europe, as indeed it did in 1950-53 and 1990-91, and most recently in Afghanistan. However, the possibility of such operations should not be used to determine long-term force requirements. In short, the cost and military utility of converting British nuclear submarines to conventional use must be balanced against resources earmarked for 'core' defence missions. In addition to contributing to collective defence within NATO, such core missions will increasingly include election monitoring, peacekeeping, arms control verification and humanitarian relief. There is a strong case for such missions being given a higher priority than seeking to enhance Britain's sea-launched cruise-missile capabilities.

Chapter 8:

Conclusions and recommendations

8.1 Redoubling efforts to stop proliferation of weapons of mass destruction

It should now be obvious to everyone that people who have the fanaticism and capability to fly an airliner laden with passengers and fuel into a skyscraper will not be deterred by human decency from deploying chemical or biological weapons, missiles or nuclear weapons or other forms of mass destruction if these are available to them. We must therefore redouble our efforts to stop the proliferation and the availability of such weapons. – Secretary of State for Foreign and Commonwealth Affairs, speaking in the House of Commons, 14 September 2001

The 2001 Labour Party Manifesto states:

*Although Britain has rarely been more secure from foreign invasion, there are new threats to our people from crime and terrorism. Instability around the world can affect us directly and we have a global responsibility to play our part in reducing international conflict, controlling the spread of weapons of mass destruction, and contributing to international peace-keeping and peace-making operations.*175

In the aftermath of the terrorist attacks in Washington and New York, Britain's global responsibility to contribute to efforts to prevent proliferation of nuclear, chemical and biological weapons and their delivery systems has never been more pressing.

In recent months, Britain's non-proliferation efforts have been seriously undermined by the Bush Administration's rejection of key aspects of international arms control. In particular the US rejection of the verification protocol to the BTWC, refusal to ratify the CTBT, and the emerging arms race with China, triggered by US missile defence plans, cannot be in Britain's security interests.

The Labour Party Manifesto also stated that:

Britain needs a government ready to stand up for our interests and values. We have a ten-year vision for British foreign policy: a leading player in Europe, our alliance with the USA strengthened, using our global connections to help Britain and tackle global problems…We face a choice between an inward-looking chauvinism that leads to isolation and a modern patriotism where the British national interest is pursued through international engagement.176

If Britain is to redouble its efforts to stop the proliferation and availability of weapons of mass destruction, it must now use its special relationship with the United States to impress upon the Bush Administration the need for international engagement in efforts to prevent proliferation of weapons of mass destruction.

Nuclear deterrence could not have prevented the terrorist attacks on Washington and New York. As Under-Secretary of State for Arms Control and International Security Affairs, John Bolton has confirmed that: "These horrible events demonstrated the validity of our concern, that there were people in the world who didn't adhere to classic notions of deterrence and whose value systems and respect for human life didn't match Western standards".177 Although some commentators have suggested that the United States could initiate "low-level, tactical nuclear strikes in the Afghanistan desert", it is hard to see how nuclear weapons could achieve any practical effect in combating an internationally dispersed terrorist network such as Al-Qaeda . The role of a relatively high yield nuclear warhead such as that used in the Trident system in deterring so-called 'rogue states' is particularly dubious. As Paul Robinson of Sandia National Laboratories states:

Today, we are threatened not only by nuclear weapons in the arsenal of peer competitors…but increasingly by biological, chemical, and radiological weapons that could kill huge numbers of people in a flash. Yet it's pretty incredible to think that the United States would respond to such an attack by vaporizing 11 million people in a rogue state just because they were poorly led. Where the hell are we going to use missiles with four to eight warheads, or half-megaton yields? Even the few "tactical" nuclear weapons that we have have high yields of above 100 kilotons. I would hope the US President would think it was crazy to use such weapons in response to a rogue-state attack.178

In practice the use of nuclear weapons would be questionable legally, and likely to prompt a strong international public backlash. As US nuclear doctrine warns, "the nation that initiates the use of nuclear weapons… may find itself the target of world condemnation".179

Trident, a system originally designed for the Cold War, looks increasingly irrelevant to the types of military conflict Britain is likely to face in future. As the US prepares to make deep cuts to its nuclear arsenal, the UK Government will come increased pressure to make further progress on nuclear disarmament.

Labour's second term in office will see key policy challenges in the field of preventing proliferation. As the next NPT review conference will be held in 2005, the period between now and the next General Election (in 2005 or 2006) will be the key time during which the parties to the NPT must make progress on implementing the 2000 Nuclear Disarmament Plan of Action, if it is not to fall by the wayside.

The Comprehensive Test Ban Treaty and the current moratoria on nuclear testing also risk being eroded in the next five years, if action is not taken to rule out further nuclear tests and to bring the treaty into force.

At the same time, Britain faces important choices concerning the future of its own nuclear weapons programme in the coming years, not least of which is the challenge to Trident's legality, which is being actively pursued through the courts and through non-violent protest. In the coming years, the UK Government will have to address the questions of whether to replace Trident, embark on a programme to extend the life of the system, or phase Trident out, by engaging in international disarmament negotiations or, perhaps by converting the submarines to conventional use.

Given the weight of these decisions, parliamentary scrutiny of British nuclear weapons policy and British policy on weapons of mass destruction will be crucial, if the United Kingdom is not to repeat the mistakes of the Chevaline programme.

8.2 Policy options for Labour's second term

1. **The Government should implement the 2000 NPT Nuclear Disarmament Plan of Action**

"The Nuclear Non-Proliferation Treaty commits us to work for the global elimination of nuclear weapons." (Ambitions for Britain, Labour Party Manifesto 2001)

Successive British governments have regarded the NPT as the 'cornerstone' of international efforts to prevent nuclear proliferation. Contrary to President Bush's assessment that the risk of nuclear proliferation is growing, since the end of the Cold War the NPT has had many successes. France and China have ratified the Treaty, along with countries once regarded as a nuclear proliferation threats, such as Argentina and Brazil. In addition, South Africa has unilaterally eliminated its nuclear weapons altogether. Currently only four countries – India, Pakistan, Israel and Cuba – remain non-signatories and outside the treaty's constraints.

However, in recent years, the NPT has been under increasing strain. India and Pakistan have joined the nuclear club by testing nuclear devices, and dissatisfaction amongst many non-nuclear-weapon states parties to the treaty appears to be growing with the slow pace of progress towards nuclear disarmament. Disappointingly few countries have ratified the International Atomic Energy Agency's Additional Protocol, designed to strengthen verification of the Treaty, following the discovery of the extent of Iraq's clandestine nuclear programme.

However, whilst the treaty is not perfect, it still stands as the international community's greatest barrier to nuclear proliferation and as such it must be strengthened, not eroded.

At the 2000 NPT Review Conference, the British Government played an important role in achieving agreement of the NPT Nuclear Disarmament Plan of Action, under which the five nuclear weapon states made an "unequivocal commitment" to eliminate their nuclear arsenals along with a series of practical steps for the systematic and progressive efforts to implement Article VI of the Treaty.

If the UK Government is to redouble its efforts to prevent proliferation of nuclear weapons, then a programme of practical steps to achieve full implementation of the NPT is a good place to start. The annual Preparatory Committee (PrepCom) meetings for the 2005 NPT Review Conference, which commence in April 2002 in New York will address substantive issues as well as make the procedural preparations for the Review Conference.

As one of the three depositary nations for the NPT (the others are the United States and Russia), Britain has played an important role in the nuclear non-proliferation regime since the Treaty's inception and negotiation in the 1960s. Since 1997, the UK has used NPT PrepComs as an opportunity to report on its progress in the field of nuclear non-proliferation and disarmament.

Britain should now move a step further, taking the initiative to strengthen the NPT by preparing its own programme of action to implement the 2000 NPT Nuclear Disarmament Plan. Such a programme of action would be a timely response to increased public awareness of the risks posed by proliferation and could be presented to the NPT PrepCom in 2002.

2. **Britain should lead international efforts to bring the Comprehensive Test Ban Treaty into force**.

"We are enthusiastic signatories to the Comprehensive Test Ban Treaty, whose coming into force will impede nuclear proliferation…" (Ambitions for Britain, Labour Party Manifesto 2001)

A Bill to ratify the CTBT was among the pieces of legislation passed through the UK Parliament during the first parliamentary session following Labour's election in 1997. All the British political parties represented at Westminster supported it and in April 1998,

Britain and France became the first nuclear-weapon states to ratify the CTBT.

The CTBT commands overwhelming support from British parliamentarians. In November 1999, Early Day Motion 929 on the US Senate's rejection of the CTBT sponsored by Malcolm Savidge, MP, attracted 359 signatories including representatives of all the major political parties.

The CTBT was opened for signature in 1996 but has yet to enter into force. During the negotiations leading up to the establishment of the treaty, some nuclear weapon states (including the former UK Conservative Government) indicated that they would be unwilling to be constrained by such a treaty unless all five nuclear weapon states and the three de facto nuclear weapon states (India, Pakistan and Israel) became parties to the treaty. As a result the CTBT stipulates that it will not enter into force until it has been ratified by all 44 of the nuclear capable states (defined as those with civil nuclear reactors) identified in the treaty. To date, 31 of these countries have signed and ratified the treaty, but 13 "CTBT hold-outs" have yet to ratify, thereby blocking the treaty's entry into force.180

In its report Weapons of Mass Destruction in 2000, the Foreign Affairs Select Committee recommended:

*By preventing any explosive nuclear testing world-wide the CTBT represents a crucial component of the non-proliferation regime because it seeks to impose qualitative constraints on nuclear weapons development. Thus its early entry into force is vital to this country's security. We urge the Government to co-operate with the US Administration and encourage the new US President to re-submit the CTBT to the Senate for ratification as an urgent priority, to encourage China and Israel to ratify the treaty and also to impress upon India and Pakistan, in particular, the importance of their becoming parties to the CTBT.*181

Since taking office the Bush administration has reiterated its opposition to the CTBT and has refused to support ratification. The US weapons laboratories, supported by some members of Congress, are pushing to develop new nuclear weapons, such as low-yield, mini-nukes intended to give the US the capacity to attack deeply buried targets. Against this background, the US Department of Energy is currently undertaking a study on how the United States could reduce the notice required (currently 12-36 months) to resume nuclear testing.

The CTBT also risks becoming a casualty of the Bush administration's drive to develop missile defences. Far from encouraging China to ratify, recent media reports suggest that the Bush administration might seek to overcome Chinese opposition to missile defence by acquiescing with China's plans to build up its nuclear missile force. The possibility also exists that the United States and China might discuss resuming underground nuclear tests, despite being signatories to the CTBT.182 The Bush administration has also made its opposition to the CTBT clear on the diplomatic front, as discussed in section 5.2.

In the effort to build an international coalition against terrorism, the United States has waived sanctions against India and Pakistan, originally imposed following the South Asian nuclear tests of 1998.Tony Blair has also announced that Britain is to restart defence collaboration with Pakistan. In short, General Musharref's regime in Pakistan is now regarded as a core US and British ally.

However, the risk that instability might lead to the overthrow of the Musharref regime or result in the Pakistan Government losing control of its nuclear weapons, highlights the importance of continued international pressure on Pakistan and India to renounce nuclear weapons and join both the NPT and the CTBT.183 It is vital that Pakistan's nuclear programme is not ignored in the effort to secure the international coalition against terrorism. Any loss of control over these weapons would be counterproductive to the future stability of the region.

In this context, the international community should also redouble its efforts to find a solution to the conflict in Kashmir, which lies at the heart of nuclear tensions between

India and Pakistan. Although this is far easier said than done, the current international climate might prove favourable to a new regional initiative. The United States and United Kingdom should use the anti-terrorism coalition as a means of bringing the key parties in South Asia (China, India and Pakistan) to the negotiating table to address their regional concerns. Unless their regional security needs are met, there is little prospect of nuclear disarmament in South Asia.

Every year that goes by without the CTBT entering into force, the danger increases that some states may resume nuclear testing.

Britain must now work to implement the Final Declaration of the Conference on Facilitating Entry into Force of the Comprehensive Test Ban Treaty. In particular, it must use its special relationship with the United States to impress upon the Bush administration the importance of ratifying the CTBT and that any deal with China to resume nuclear testing would be unacceptable to the international community.

3. **Britain should respond positively to President Putin's proposal for five-power talks on nuclear disarmament**.

"We will encourage the US to consult closely with NATO allies on its ideas for missile defence, and to pursue dialogue with Russia on a new framework for strategic arms control that will encourage further cuts in nuclear weapons." (Ambitions for Britain, Labour Party Manifesto 2001)

Although Article VI of the NPT places an obligation on all its states parties to "pursue negotiations in good faith on effective measures relating to 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", to date Britain has not been prepared to enter its nuclear weapons systems into any multilateral nuclear disarmament negotiations. Instead, as discussed in section 1.1, most British nuclear disarmament initiatives have been unilateral and fairly limited in scope. Even the decision taken by the current Labour government in the SDR to reduce the number of warheads deployed on Trident, although heavily spun, has in practice resulted in a reduction by only 12 warheads deployed per Trident submarine, and did not result in the dismantlement of any warheads.

When the Thatcher Government originally set out the case for Trident, it argued that: "The scale of our new capability will in no way disturb existing and prospective East/West relativities... when the force was fully operational in the mid-1990s it would represent in relation to Soviet strategic forces at that time... about the same proportion of delivery systems as – and a rather lower proportion of warheads than – the Polaris force did in relation to Soviet forces when it was completed in 1970".184 Following the large reductions in Soviet nuclear forces, this is clearly no longer the case.

Throughout the 1990s, Conservative and Labour governments have argued that the priority is for reductions in US and Russian nuclear forces.185 The previous Conservative foreign secretary, Douglas Hurd, stated that "a world in which US and Russian nuclear forces were counted in hundreds, rather than thousands, would be one in which Britain would respond to the challenge of multilateral talks on the global reduction of nuclear arms".186 Similarly, the Labour Government in the SDR argued that:

> Our own arsenal… is the minimum necessary to provide for our security for the foreseeable future and very much smaller than those of the major nuclear powers. Considerable further reductions in the latter would be needed before further British reductions could become feasible.187

Britain's failure to enter into international disarmament negotiations is appearing legally unsound. The 1996 International Court of Justice advisory opinion that "there exists an obligation to pursue in good faith and bring to a conclusion negotiations leading to nuclear disarmament in all its aspects under strict and effective international control," de-linked the

NPT's legal obligation on its parties to achieve nuclear disarmament from the longer term goal of general and complete disarmament.188 This removed one of the UK Government's previous excuses that nuclear disarmament negotiations might not be possible unless carried out in the context of progress towards general and complete disarmament. Whilst the US and Russia can point to some degree of progress through the negotiation of the START nuclear disarmament treaties, Britain has yet to enter any negotiating process.

At the 2000 NPT Review Conference, the UK did finally recognize that the smaller nuclear-weapon states would need to accept that "in due course they will need to join the larger nuclear-weapon States in negotiations about their nuclear weapons".189

President Putin's current proposal for five-power nuclear disarmament talks do not appear to be very challenging for the United Kingdom, as they do not aim for any specific reductions in British nuclear forces. They would, however, provide an opportunity for the UK Government to begin the process of engaging with the United States and Russia in multilateral disarmament talks.

The possibility for the UK Government to participate as an equal partner in such talks and to address issues such as development of a new strategic security framework, confidence and security building measures between the nuclear-weapon states, and the possibility of nuclear cuts and reductions in alert status, would be very much in Britain's long-term security interests and would enhance the country's status on the world stage. P5 talks could also provide a forum for the UK Government to express concerns about the weaponisation of space. President Chirac has already responded positively to Putin's proposal. The UK Government should do likewise.

4. **The Government should review the option of converting the UK Trident submarines to conventional use**.

"We support Trident, Britain's minimum deterrent. The Nuclear Non-Proliferation Treaty commits us to work for the global elimination of nuclear weapons." (Ambitions for Britain, Labour Party Manifesto 2001)

Successive British governments, including Labour governments, have ruled out the possibility of unilaterally abandoning the UK nuclear capability. The argument is put forward that British nuclear weapons increase the United Kingdom's standing in international affairs, cement the special relationship with the United States, and in the case of Trident, that the money has already been spent.

Since the end of the Cold War, British armed forces have been involved heavily in peacekeeping operations in the Balkans, the war over Kosovo, and now the US-led coalition against terrorism. But while conventionally armed submarines played an active role in the Kosovo operation (acting in coordination with US submarines) and have also participated in cruise-missile attacks against targets in Afghanistan, the role for a Trident system originally designed to deter (and, if necessary, destroy) Moscow seems increasingly out of date.

The Labour Government has consistently argued that no further review of British nuclear policy or progress on nuclear disarmament is necessary following the SDR. As the former secretary of state for foreign and commonwealth affairs, Robin Cook, told the Foreign Affairs Committee, concerning reductions in the UK nuclear arsenal, "further progress must depend on progress by other nuclear weapon states".190 Similarly, in June 2000, the current secretary of state for defence, Geoff Hoon, attempted to justify the lack of progress on British nuclear disarmament on the basis that "nothing has changed" since the SDR in 1998.

However, there have been many changes in the nuclear arena since the SDR. The US Government is moving towards a radically different nuclear posture, based on much lower numbers of deployed nuclear weapons combined with missile defences. Russia's dwindling nuclear capability is steadily eroding due to lack of resources. In addition, the

need to address the problem of proliferation of weapons of mass destruction has been highlighted by the terrorist attacks of 11 September. The role and mission of British military forces is having to change to address the new international situation following 11 September, but it seems unlikely that Trident could ever fulfil any meaningful role in deterring dispersed terrorist networks.

All these factors have major implications for the UK Trident force both in terms of how many nuclear weapons Britain should deploy, what UK nuclear force posture and alert status should look like and ultimately what role, if any, Trident should play in future.

Although the SDR was presented as a wide-ranging review of British defence policy, it was predicated on the political assumption that Trident must be retained for the foreseeable future. The US Government is now radically revising its nuclear posture. It is also converting a number of its Trident submarines to fulfil a conventional role (something that British governments have previously claimed was prohibitively expensive and unfeasible).

As former Royal Navy Commander Rob Green argues:

*Nuclear-armed UK Trident is a major impediment to the Royal Navy role because its armament is militarily useless, and its use – and therefore any threatened use - would be unlawful. A UK decision, exploiting a current US Navy proposal, to convert its four Vanguard class Trident submarines to carry a mix of precision-guided conventional armaments would solve this problem.*191

The UK Government should now seriously consider the future role of Trident, including the possibility that it could be converted to conventional use, although, as discussed in section 7.6, any potential conversion should be considered in the context of a wide-ranging review of British defence needs. Given also the context of 11 September and its aftermath, the 1998 SDR is itself looking rather dated, and consideration should be given to undertaking a new SDR at the earliest opportunity. Such a review should be transparent, open-ended and subject to detailed parliamentary scrutiny.

5. **Government policy and decision making on nuclear weapons should be subject to detailed parliamentary scrutiny**.

"We sought, as far back as our inquiry on the SDR, a restatement of the government's strategic nuclear policy. We have been offered some dribs and drabs, including a speech made by the former Secretary of State at Aberdeen University. We consider that the government, now rightly thinking (if not yet forming policy) for the period of 30 years ahead, needs to address this issue more squarely." (Defence Select Committee, 9 May 2001)

Although Labour came to government with a commitment to increased transparency in the nuclear field, there has been a marked reduction in parliamentary scrutiny of the UK nuclear programme in the last five years. Although the Government has been more willing to engage with some academics and non-governmental organizations than its predecessor, the process of annual Government statements on nuclear policy to the Defence Select Committee inquiries on Progress of the Trident programme and in the annual Statements on the Defence Estimates, has been replaced by sporadic and less detailed information being presented to Parliament and to the public.

Many key questions concerning the current status of British nuclear policy remain unanswered: What is the Government's position on replacement of Trident? Are there any plans to develop a new UK nuclear warhead? Has authorization been given to Aldermaston to pursue life extension programmes for Trident? What is the nature and extent of current British nuclear cooperation with the US nuclear weapons laboratories? What are the implications of changes in US nuclear strategy and posture for UK and NATO nuclear policy? Has the UK Government studied US proposals to convert Trident submarines to conventional use?

There are also questions concerning the UK's non-proliferation policy: What steps are envisaged to implement the 2000 NPT Nuclear Disarmament Plan? How does the UK Government intend to respond to President Putin's proposal for disarmament talks?

Many of these issues go well beyond the scope of written parliamentary questions. Fuller discussion, scrutiny and public debate on the future of British nuclear policy is required. Previous governments have been reluctant to come forward with information concerning nuclear policy and have even gone to great lengths to conceal major decisions from the public.

The British Parliament's ability to scrutinise and decide policy is significantly more limited than that of the US Congress, which has the power to amend the annual legislation governing procurement of weapon systems. In contrast, British defence debates have been limited to "take it or leave it" votes on unamendable defence policy documents, whilst many of the costs associated with particular military programmes remain hidden in a complex system of interlinked "Votes".

Britain is unlikely to achieve levels of transparency and parliamentary accountability similar to the Uni-ted States without radical change to its parliamentary system, but more could be done by the existing departmental select committees to ensure maximum scrutiny of Government policy in this area.

As a first step, a process for regular inquiries into British non-proliferation policy and nuclear policy should be instituted, perhaps along the lines of the Foreign Affairs Committee's inquiries into Proliferation of Weapons of Mass Destruction and the previous Defence Committee's annual inquires into Progress of the Trident programme. Such inquiries should include the opportunity for oral questioning of the relevant secretaries of state.

Similarly the system of parliamentary defence debates should be regularised to allow government defence debates to take place on an annual cycle, at similar stages in the parliamentary session each year, rather than the current system where debates often come up erratically and at short notice. In addition, greater opportunity needs to be given to back bench MPs and opposition parties to initiate debate in this area, rather than being dependent on the government to come forward with parliamentary statements.

Finally, the Ministry of Defence's implementation of Government Policy on Open Government should be reviewed. British nuclear policy requires expenditure of large sums of tax-payers money and remains a controversial area of policy to this day, but important parliamentary questions concerning nuclear policy (including questions concerning cost) are frequently not answered by government under exemptions provided in the Code of Practice on Access to Government Information. Without better access for Parliament to information concerning nuclear policy, fuller scrutiny of and accountability for the UK's nuclear programme will be impossible.

Appendix 1: The 'Programme of Action' agreed at the 2000 NPT Review Conference

The following is excerpted from the Final Document of the 2000 Review Conference of the Parties to the Treaty of the Non-Proliferation of Nuclear Weapons.

15. The Conference agrees on the following practical steps for the systematic and progressive efforts to implement Article VI of the Treaty on the Non-Proliferation of Nuclear Weapons and paragraphs 3 and 4 (c) of the 1995 Decision on "Principles and Objectives for Nuclear Non-Proliferation and Disarmament":

1. The importance and urgency of signatures and ratifications, without delay and without conditions and in accordance with constitutional processes, to achieve the early entry into force of the Comprehensive Test Ban Treaty.

2. A moratorium on nuclear weapon test explosions or any other nuclear explosions

pending entry into force of that Treaty.

3. The necessity of negotiations in the Conference on Disarmament on a non-discriminatory, multilateral and internationally and effectively verifiable treaty banning the production of fissile material for nuclear weapons or other nuclear explosive devices in accordance with the statement of the Special Coordinator in 1995 and the mandate contained therein, taking into consideration both nuclear disarmament and nuclear non-proliferation objectives. The Conference on Disarmament is urged to agree on a programme of work which includes the immediate commencement of negotiations on such a treaty with a view to their conclusion within five years.

4. The necessity of establishing in the Conference on Disarmament an appropriate subsidiary body with a mandate to deal with nuclear disarmament. The Conference on Disarmament is urged to agree on a programme of work which includes the immediate establishment of such a body.

5. The principle of irreversibility to apply to nuclear disarmament, nuclear and other related arms control and reduction measures.

6. An unequivocal undertaking by the nuclear weapon states to accomplish the total elimination of their nuclear arsenals leading to nuclear disarmament to which all States parties are committed under Article VI.

7. The early entry into force and full implementation of START II and the conclusion of START III as soon as possible while preserving and strengthening the ABM Treaty as a cornerstone of strategic stability and as a basis for further reductions of strategic offensive weapons, in accordance with its provisions.

8. The completion and implementation of the Trilateral Initiative between the United States of America, the Russian Federation and the International Atomic Energy Agency.

9. Steps by all the nuclear weapon States leading to nuclear disarmament in a way that promotes international stability, and based on the principle of undiminished security for all:

- Further efforts by the nuclear weapon States to reduce their nuclear arsenals unilaterally.
- Increased transparency by the nuclear weapon States with regard to their nuclear weapons capabilities and the implementation of agreements pursuant to Article VI and as a voluntary confidence-building measure to support further progress on nuclear disarmament.
- The further reduction of non-strategic nuclear weapons, based on unilateral initiatives and as an integral part of the nuclear arms reduction and disarmament process.
- Concrete agreed measures to further reduce the operational status of nuclear weapons systems.
- A diminishing role for nuclear weapons in security policies to minimise the risk that these weapons ever be used and to facilitate the process of their total elimination.
- The engagement as soon as appropriate of all the nuclear weapon States in the process leading to the total elimination of their nuclear weapons.

10. Arrangements by all nuclear weapon States to place, as soon as practicable, fissile material designated by each of them as no longer required for military purposes under IAEA or other relevant international verification and arrangements for the disposition of such material for peaceful purposes, to ensure that such material remains permanently outside of military programmes.

11. Reaffirmation that the ultimate objective of the efforts of States in the disarmament process is general and complete disarmament under effective international control.

12. Regular reports, within the framework of the NPT strengthened review process, by all States parties on the implementation of Article VI and paragraph 4 (c) of the 1995 Decision on “Principles and Objectives for Nuclear Non-Proliferation and Disarmament”, and recalling the Advisory Opinion of the International Court of Justice of 8 July 1996.

13. The further development of the verification capabilities that will be required

to provide assurance of compliance with nuclear disarmament agreements for the achievement and maintenance of a nuclear weapon free world.

For the full text of the Final Document of the 2000 Review Conference of the Parties to the Treaty of the Non-Proliferation of Nuclear Weapons, see http://www.un.org/Depts/dda/WMD/finaldoc.html

Appendix 2: Outcome of the Conference on Facilitating the Entry into Force of the Comprehensive Nuclear-Test-Ban Treaty 11-13 November 2001

The following is excerpted from the 'Conference on Facilitating the Entry into Force of the Comprehensive Nuclear-Test-Ban Treaty Press Release', DC28/20, 13 November 2001:

When it concludes today, the Conference will issue its Final Declaration (document CTBT-ART.XIV/2001/WP.1). In the Declaration, delegations reaffirm their strong determination to promote international peace and security and stress the importance of a universal and internationally and effectively verifiable CTBT as a major instrument in the field of nuclear disarmament and non-proliferation.

Member States of the Conference reiterate that the cessation of all nuclear-weapon-test explosions and all other nuclear explosions, and constraining the development and qualitative improvement of nuclear weapons and ending the development of advanced new types of nuclear weapons, constitutes an effective measure of nuclear disarmament and non-proliferation. It is, thus, a meaningful step in the realization of a systematic process to achieve nuclear disarmament. The delegates renew their commitment to work for universal ratification of the Treaty and its early entry into force.

Despite the progress made and strong support for the Treaty, delegations note with concern that the Treaty has not entered into force five years after opening for signature. Member States of the Conference, therefore, stress their determination to strengthen efforts aimed at promoting the Treaty's entry into force at the earliest possible date. Delega-tions affirm that the conduct of a nuclear-weapon-test explosion or any other nuclear explosion constitutes a serious threat to global efforts towards nuclear disarmament and non-proliferation.

Member States of the Conference call upon all States to maintain a moratorium on nuclear-weapon-test explosions or any other nuclear explosions and underline the importance of signature and ratification of the Treaty. Delegations welcome the progress in building the global infrastructure for Treaty verification, including the International Monitoring System, with a view to ensuring that the verification regime will be capable of meeting the requirements of the Treaty at entry into force. Convinced of the importance of achieving universal adherence to the Treaty, delegations welcome the ratifications of all States that have done so since the 1999 Conference, stressing in particular the steps required to achieve its early entry into force.

Member States of the Conference:

— Call upon all States that have not yet ratified the Treaty to sign and ratify it as soon as possible and to refrain from acts which would defeat its object and purpose in the meanwhile;

— Call upon States that have signed but not ratified the Treaty, in particular those whose ratification is needed for entry into force, to accelerate their ratification processes with a view to early successful conclusion;

— Recall that two States out of three whose ratification is needed for the Treaty's entry into force, but have not yet signed it, have expressed their willingness not to delay the entry into force of the Treaty, and call upon them to ratify it as soon as possible;

— Note the fact that one State out of three whose ratification is needed for the Treaty's

entry into force and which have not yet signed it, had not expressed its intention towards the Treaty, and call upon this State to sign and ratify it as soon as possible;

— Note the ratification of the Treaty by three nuclear-weapon States and call the other two to accelerate their ratification processes;

— Agree that ratifying States will select one of their number to promote cooperation to facilitate the early entry into force of the Treaty, through informal consultations with all interested countries; and

— Call upon the Preparatory Commission for the CTBTO to continue its international cooperation activities to promote understanding of the Treaty, including by demonstrating the benefits of the application of verification technologies for peaceful purposes.

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