

The United Kingdom and Nuclear Weapons

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This paper looks at the United Kingdom's nuclear weapons capability as Trident takes over from Polaris. It considers the implications of a Comprehensive Test Ban Treaty and shifts in the strategic context since the end of the Cold War. Earlier papers on related subjects were *Nuclear Testing and the UK* (93/73) and *The Extension of the Non-Proliferation Treaty* (94/99)

Richard Ware
International Affairs and Defence Section

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Introduction

Significant changes to Britain's nuclear weapon capability are under way at a time when the strategic environment is also shifting. The transition from Polaris to Trident is at approximately the mid-way point in 1995 and by 1998 will entail a further transition from deterrence based on two separate systems to deterrence based on a single system capable of operating in both strategic and sub-strategic modes.

In May 1995 the Non-Proliferation Treaty, which limits nuclear weapons to the five recognised nuclear weapon states (the USA, the Russian Federation, China, the UK and France) in return for their commitment to the principles of nuclear arms control and disarmament, was extended for an indefinite period, but only when all the parties had reaffirmed that their ultimate goal is "complete elimination of nuclear weapons" and the nuclear-weapon states had accepted a programme of action which includes the negotiation of a Comprehensive Test-Ban Treaty no later than 1996, the early conclusion of a treaty banning the production of fissile materials for nuclear weapons and the pursuit of further cuts in nuclear arsenals.

All three items in the programme of action have some effect on the British nuclear weapons programme. The Government announced at the NPT Extension Conference that it had ceased production of fissile material for explosive purposes and wanted an early start to negotiations on this issue, a decision which probably reflects the fact that sufficient fissile materials for new Trident warheads can be obtained by recycling from redundant warheads.¹

The Comprehensive Test Ban Treaty is more significant because the Government has cast doubt in the recent past over whether it would be possible to guarantee the reliability of the existing nuclear arsenal without the possibility of nuclear tests in the future and it also raises questions about whether or not there could ever be a successor to Trident.

The pursuit of further global reductions in nuclear weapons will not necessarily affect Britain until and unless a further major reduction is achieved by the USA and Russia following START II, but there could be pressure for Britain to be more open in disclosing how many warheads are in the stockpile, rather than persisting in the present policy of announcing ceilings which are almost certainly well above the number of warheads actually possessed.

¹ *Arms Control Reporter*, 612.B.12. See also the statement by Douglas Hurd, HC Debates, 16 May 1995, Vol 260, c151.

There was general agreement at the Extension Conference that, "Nuclear disarmament is substantially facilitated by the easing of international tension and the strengthening of trust between States which have prevailed following the end of the cold war".² Negotiated reductions in nuclear firepower and new measures, such as the CTBT, designed to inhibit or prevent a new round of competitive nuclear weapon development, could produce a new era in which nuclear weapons have a much diminished role, but it remains to be seen whether or not the more co-operative climate in international relations and the new concern with joint action to tackle global problems will persist into the new century.

I The British Deterrent: Polaris to Trident

Since the late 1960s Britain has had a submarine-based strategic nuclear weapon system, committed to NATO except in the most extreme circumstances, but under national control. Previously British nuclear capability had rested on the RAF strategic bomber force following the first operational deployment in 1953. The submarine-based force which began to enter service in 1968 consisted of a fleet of four British-built Resolution-class nuclear-powered submarines, Polaris missiles purchased from the United States and nuclear warheads constructed by the Atomic Weapons Establishment (Aldermaston). Apart from the warheads, which were changed to the Chevaline type during the 1970s, the whole system dates from the 1960s and is now approaching obsolescence.

The decision to replace Polaris with Trident was taken in 1980 and modified in 1982 to include the Trident D5 missile, though such is the time lag in major projects of this kind that it is becoming operational only in the mid-1990s. The replacement system will have essentially the same components as before: nuclear-powered British-built submarines of the Vanguard class, Trident D5 missiles purchased from the United States and a new British warhead. The transition is now reaching the midway point: one Trident submarine has been operational since December 1994 and the second is due to enter service late in 1995; two of the four Polaris-carrying submarines have been decommissioned. There have been some problems in maintaining the last two in service, but one, at least, is expected to remain in the fleet until the second Trident submarine is operational. After that the remaining Polaris submarines will be decommissioned and continuous patrolling will depend on just two Trident submarines, until the third and fourth enter service in 1998 and around the year 2000 respectively, assuming no delays in construction.³ Once all four submarines are operational it should be possible to maintain a continuous patrol even when one submarine is being refitted and another requires unplanned repair.

² from *Principles and Objectives for Nuclear Non-Proliferation and Disarmament*, statement adopted by the NPT Extension Conference on 11 May 1995, para 3.

³ Progress of the Trident Programme, Eighth report from the Defence Committee, HC 350 of 1994-95, para 3.

The transition from Polaris to Trident will also involve the transition from Britain having two major nuclear weapon systems to just one. Throughout the life of Polaris, a second "sub-strategic" system consisting of air-borne nuclear gravity bombs was maintained. Following the decision announced in October 1993 not to replace the WE177 warhead with a "TASM" (tactical air-to-surface missile), the Trident system is now intended to cover both strategic and sub-strategic missions from 1998. In the sub-strategic role the missile will carry a single slightly modified warhead.⁴ The WE177 warheads will be decommissioned and the RAF will cease to have a nuclear role.

II CTBT

A. Negotiations

A Comprehensive Test Ban Treaty (CTBT) has been the declared goal of many states and arms control proponents for many years, but only with the end of the cold war has it become a practical prospect. A legally binding international agreement not to carry out test explosions of nuclear devices would have obvious environmental benefits, even if, as some governments still claim, the risks associated with careful testing are very low, but the main intended effect is to end the continuous competitive development of ever more sophisticated or destructive nuclear weapons and to place further obstacles in the way of nuclear proliferation.

Negotiations are continuing in Geneva and it now seems possible that a Treaty will be ready for signature in 1996, although significant areas of disagreement still have to be resolved. Three of the nuclear weapon states, the USA, Russia and the UK, have observed a moratorium on nuclear testing since 1992 and have stated their intention to proceed to signature of a CTBT without carrying out further tests. By contrast, China and France are continuing to test, at least until the treaty is signed, or, in the case of China, until it enters into force, which could be at a significantly later date given the need for ratification. There is continuing disagreement about how many and which ratifications are essential before the treaty can enter into force.

China is demanding that peaceful nuclear explosions (ie for civil projects, such as tunnelling and river diversion) should still be allowed under the treaty. These are permitted under the Non-Proliferation Treaty, but have not taken place anywhere in the world since the Soviet Union ended its programme in 1987.

⁴ *ibid*, para 26

China is also resisting the idea that some of the verification mechanisms, including on-site inspections could be triggered by information gathered by "national technical means" (ie satellites and sensors belonging to particular countries) and would prefer that such inspections could only take place on the basis of decisions taken under the international system of verification. Other countries want to rely to a greater extent on national technical means because this would reduce the need to put in place a very expensive verification system under international control.⁵

China's stance could be vital in determining the outcome of the CTBT negotiations and its role has so far been ambiguous, leaving some observers suspicious as to whether the declared policy of supporting a CTBT in principle reflects underlying Chinese intentions and priorities.⁶

B. Implications

Work on the Trident warhead was completed before the moratorium on nuclear testing took effect. It has been reported that the UK planned to carry out at least three more tests during 1992-6, probably in connection with the now cancelled TASM warhead and proposed safety devices, but these fell victim to the US decision to introduce and then extend the moratorium. The last British test was held at the Nevada test site in the USA in 1991. Previously there had been on average, one British test at Nevada each year throughout the 1980s.

Official thinking on the need for nuclear tests has undergone a significant evolution. During most of the 1980s the view of the British government was that a comprehensive ban would eventually be desirable, but that in the short term testing was essential to maintain deterrence and safety. As recently as 1993 the Government still believed that only live testing could ensure the safety and reliability of nuclear weapons and that it could not yet be certain that simulation techniques could provide an adequate substitute.⁷ By the time that the 1994 *Statement on the Defence Estimates* was published the Government had accepted that future plans would be based on simulation and alternative technologies alone, but it was openly acknowledged that, "Committing ourselves to negotiate a CTBT has not been an entirely easy decision for us".⁸

⁵ *Non-Proliferation News*, Issue 32, 8 September 1995

⁶ For example, J Mohan Malik, "China's policy towards nuclear arms control", *Contemporary Security Policy*, August 1995, where the author argues that "The Chinese military's known opposition to nuclear arms control measures, coupled with the PLA's nuclear modernization programme which requires extensive testing, could result in the erection of new hurdles by the Chinese in the CTB talks (p27).

⁷ HC Debates, 5 July 1993, c24

⁸ Cm 2550, p20, para 4. The technical arguments surrounding the testing issue were summarised in *Nuclear Testing and the UK*, Library Research Paper 93/73 of July 1993. An official witness told the Defence Select Committee in March 1995 that "if the moratorium were lifted and the United States started testing again we would wish to test as well because as we discussed last year the only way that a nuclear physicist really knows that what he is doing is

The slackening of US-Russian competition in nuclear weapons and the loss of the Russian test-site in Kazakhstan made it much more likely that the USA and Russia would be able to agree on a CTBT, and all three "western" nuclear powers (and most probably Russia and China too) began to put more emphasis on developing technologies which would enable them to simulate nuclear tests in future. The ending of the cold war also made it much more difficult for governments to hold out indefinitely against public pressure to cease testing on environmental grounds. There then developed an intense debate in Washington and Paris about whether or not further actual tests would be required in order to calibrate and confirm the effectiveness of simulation technologies. In both cases the issue was closely fought and had to be resolved at the highest political level. While President Clinton decided that the moratorium should be maintained, President Chirac, following his victory in the French presidential election in May 1995, decided that French interests required a final series of seven or eight tests, of which four would be devoted to testing simulation technology.

The British Government, being entirely dependent on the use of the US test site in Nevada, had little choice but to follow the USA in deciding to dispense with further tests and, as noted above, the difficult decision was made in 1994, but the evidence given by officials to the Defence Committee in January and February 1995 suggests that there was still some scepticism about simulation.⁹ The UK has also now followed the US decision not to insist on an exception being made in the proposed Comprehensive Test Ban Treaty for so-called "hydro-nuclear experiments", ie laboratory-scale detonations involving very small fission yields. Thus, assuming that the CTBT is signed in 1996 and the USA does not waver in its decision to maintain the moratorium until then, the UK will have no further opportunity to carry out nuclear tests of any kind and will have to rely on simulation techniques.

The Defence Committee has also commented on this prospect. It noted the MOD view that a CTBT would constitute a "very severe limitation" in maintaining a nuclear capability and concluded:

We look to MOD to provide the resources to facilitate the widest possible use of existing expertise and facilities at AWE and to pursue with vigour the prospects for future co-operation with appropriate allies in non-nuclear testing.¹⁰

It is not clear just how far such co-operation with the USA and France could go. There were newspaper reports in September 1995 suggesting that some understanding had been reached on the sharing of data from those French nuclear tests which are specifically designed to calibrate equipment for future simulation, despite the differences between British and French

correct is by carrying out an experiment to prove it", HC 350 of 1994-95, p9, Q 1515.

⁹ HC 350 of 1994-95, xiv

¹⁰ *Progress of the Trident Programme*, Eighth report of the Defence Committee, HC 350 of 1994-95

warhead designs. This was denied by the FCO where a spokesman commented: "We have neither sought any data nor been offered it".¹¹

The official UK response to the French decision to resume testing has been to assert that this is a matter for the French. At a meeting of EU foreign ministers where the French decision was generally criticised the Foreign Secretary commented:

It is for the French to justify these nuclear tests, but what we must do is keep our eye on the main strategic objective, which is the comprehensive test ban treaty which will ban all nuclear tests permanently.¹²

According to *The Guardian*:

A succinct defence of the British position was given by Mr Rifkind's predecessor, Douglas Hurd, in response to a constituent who wrote to him last month: 'The reason why the British government is not protesting against the French test is that it would be hypocritical to do so,' Mr Hurd wrote to John Widdicombe of Witney, Oxfordshire. 'Like France we are a nuclear power and believe that our security is strengthened by remaining one.'¹³

III The START Process

START I was concluded in 1991 and finally entered into force in December 1994, following the Ukrainian ratification of the Lisbon protocol which dealt with the problems arising from the fact that the Soviet Union, which had originally concluded the treaty with the United States, had ceased to exist at the end of 1991 and that four of its successor states had been left with strategic nuclear weapons on their territory. Under the arrangements now in force most of the remaining nuclear weapons in Ukraine, Belarus and Kazakhstan will have been transferred to the Russian Federation by the end of 1995 and all by 1997. Once this process is complete START I will apply just between the United States and Russian Federation.

START II was signed by the Russian Federation and the United States in 1993, but has so far been ratified by neither side. It had been agreed at the outset that it could not enter into force before START I, on which it builds, so it was held up by the delay in bringing START I into force. Now, in theory, there are no further obstacles, and the process of ratification has begun on both sides, but it is possible that both the Russian Duma and the US Senate may delay giving their consent, mainly because of linkages with other issues. The Russian side

¹¹ *Guardian*, 20 September 1995, *Independent*, 21 September 1995, *Daily Mail*, 3 October 1995

¹² *Daily Mail* 3 October 1995

¹³ *Guardian*, 3 October 1995

has also reiterated that in its eyes both of the START treaties depend on the continuation in force of the ABM Treaty. In other words, if the USA were to progress with its Strategic Defence Initiative to the point where it wished to amend or withdraw from the ABM Treaty, this would call into question the whole process of mutual reductions in strategic warheads.

START III has been mooted by President Yeltsin, but with no detailed proposals as yet. His aim seems to be partly to give some content and direction to high level US-Russian contacts in order to emphasize Russia's continuing great power status and avoid the relationship getting too much bogged down in such issues as Bosnia, the eastern enlargement of NATO, human rights in Chechnya, conflicts in the former Soviet republics and Russian arms sales to Iran. The USA has indicated a readiness to begin talks for a new round of cuts, but wants to see START II ratified first.

In the longer term there is obviously still some scope for bilateral agreements on nuclear weapon reductions between Russia and the USA since their post-START II ceilings of 3,500 would leave them still with many more warheads than Britain, France and China. In contrast with earlier years, Russia has only one ICBM system currently in production (SS-25) and one in development (single warhead mobile ICBM). No new strategic bombers are being produced and production of SSBNs has also ceased.¹⁴ However, the reductions already projected under the START treaties will take several years to implement and involve significant costs where the destruction of weapons and safe recovery of fissile materials is concerned. It may therefore be some time before either side is ready to consider detailed negotiations on further cuts and in the mean time the whole process is vulnerable to disruption as a result of conflicts of interest in other matters. Indeed it is possible that the START II levels could persist for most of the shelf-life of the nuclear warheads and systems available today.

If, on the other hand, the START II limits are fully implemented by 2003, as intended, and the political momentum for further reductions by the superpowers is still strong, there may be growing pressure to include the other nuclear weapon states in the next negotiations. For example, during the ratification hearings in the US Senate, Secretary of State Warren Christopher commented: "the reduction of our nuclear arsenals and the Russians to about one-third of its initial capacity still leaves us with about 3,500 nuclear missiles which is a very strong deterrent force, but we are getting into the area where it begins to be relevant to consider the others".¹⁵ However, at a later hearing the Defence Secretary William Perry indicated that there was still some way to go: "As we start going down to hundreds, instead

¹⁴ Marco de Andreis & Francesco Calogero, *The Soviet Nuclear Weapon Legacy*, SIPRI Research Report 10, 1995, pp23-4

¹⁵ Hearing before the Committee on Foreign Relations, United States Senate, 31 January 1995, p 13.

of thousands of nuclear weapons, then I think it is not only appropriate, it would be necessary to bring in the other countries who have nuclear weapons."¹⁶

One of the difficulties which the British Government would face were it to be involved in negotiations on warhead stockpiles might be that it has not hitherto been willing to reveal how many warheads are in existence. In the past the government has accepted limits which were well below the maximum capability of the system, but almost certainly higher than the numbers of warheads which it was actually intended to deploy. For example, as early as 1982 it was announced that no British Trident missiles would carry more than 8 warheads (in theory each could carry at least 14), producing a theoretical maximum of 128 warheads per submarine. In 1993 the government announced a new maximum per submarine of 96 warheads, but this is still likely to be considerably more than will actually be deployed.

There have been indications that only 12 of the 16 missile tubes on each submarine would normally be loaded with missiles. Moreover, if START II comes into force the USA plans to limit Trident missiles to 5 warheads and the UK would be under considerable pressure to follow suit.¹⁷ With at least two missiles prepared for the sub-strategic single warhead role, this would indicate an actual maximum per submarine of no more than 52 warheads and would also conform more closely to unofficial reports about the size of the British stockpile of strategic nuclear warheads.¹⁸ All this would suggest that somewhat lower limits could in future be imposed on Trident warheads without necessarily reducing the destructive power of the system. The Labour and Liberal Democrat parties currently favour setting a limit equivalent to the maximum numbers of warheads associated with Polaris (ie 64 per submarine, or 192 for three operational submarines). It is open to argument whether or not a reduction in declared ceilings is of great practical significance in this context, although the symbolism of limiting warheads to the Polaris numbers may be important.

If negotiations were to begin between all five nuclear-weapon states on warhead reductions, the British government of the day would have some difficulty in establishing a credible negotiating position. As indicated above, there is almost certainly a margin for token reductions below the present declared ceiling of 96 warheads per submarine, but it would be difficult to establish any logical connection between a small British reduction and those which would be made by other nuclear weapon powers. Moreover, a reduction in warhead numbers

¹⁶ *ibid*, hearing of 1 March 1995, p89. General Shalikashvili, Chairman of the Joint Chiefs of Staff, disagreed with Secretary Perry: "I probably think we will reach the point when we must involve the other members in these negotiations sooner than Secretary Perry just implied" - pp89, 93.

¹⁷ Robert Norris and others, *Nuclear Weapons Databook Volume V: British, French, and Chinese Nuclear Weapons*, 1995, p116 and Hearings before the Committee on Foreign Relations of the United States Senate on the START Treaty, appendix, p164. It was originally intended to achieve the START II limit of 1750 SLBM warheads by downloading to 4 warheads per missile on a fleet of 18 Trident submarines, but following the Nuclear Posture Review the USA now intends to stay within the same limit by downloading to 5 warheads per missile with a fleet of 14 submarines.

¹⁸ eg *SIPRI Yearbook 1994*, p298, where the British strategic warhead stockpile is estimated at 100.

which would look very modest in terms of the Russian or US arsenals would quickly reduce the British deterrent to a level at which its military and economic viability would be dubious. It may be that for both Britain and France the question would not present itself as one of proportionate or "salami" cuts, but rather as one of "all or nothing", with only the awkward "mothballing" option as a realistic half-way house.¹⁹

The reversal of the upward trend in global warhead numbers and the conclusion of the START treaties have prompted discussion of the possibility of a completely nuclear-weapon free world.²⁰ Does the process of mutual reductions have a logical stopping point short of total abandonment of strategic weapons? The final stage of reduction to zero is at present remote and some would consider it unattainable, even undesirable. For the UK and France there is a theoretical question which is only slightly less remote: would these two nuclear powers aspire to be in on the final stages of reduction, or would there come a point, while Russia and China still had strategic weapons, when the UK and/or France would drop out and leave the maintaining of the balance to the USA?

IV The Future of British Nuclear Weapons

The *Statement on the Defence Estimates 1995* describes steps being taken to rationalise nuclear weapons research and the work of the Atomic Weapons Establishment. It notes the fact that no new warhead will be required for some years:

We announced last year that we would not develop a new air-launched nuclear system to replace the WE177 bomb but instead would rely on the flexibility of the Trident system to fulfil the sub-strategic as well as the strategic nuclear deterrent role in the longer term. The corollary is that we do not expect to develop a new nuclear weapon system any earlier than would be required to replace Trident.²¹

The *SDE* goes on to say that it will nevertheless be necessary to sustain confidence:

both in our underwriting of in-service weapons and in our ability to develop new warheads which may be required in the future.²²

¹⁹ A form of mothballing whereby nuclear weapons would be retained in a dismantled mode has been seriously proposed, but there are obvious difficulties, particularly in ensuring their survivability - see M J Mazarr, "Virtual nuclear arsenals", *Survival*, Autumn 1995

²⁰ For example, see Nuclear-weapon-free world: desirable? feasible?. Executive summary by Frank Blackaby of the Pugwash Monograph by Joseph Rotblat, Jack Steinberger and Bhalchandra Udgaonkar. BASIC. 1993

²¹ Cm 2800, p77, para 2

²² Cm 2800, p77, para 3

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The same point was emphasised by the Chief Strategic Systems Executive, MOD, in evidence to the Defence Select Committee on 29 March 1995 when he explained the need to retain a role for experts at Aldermaston:

It is necessary also for Aldermaston because we need to retain their expertise to assemble and to make nuclear weapons. The most important thing that they have been doing is developing the AGEX [Above Ground Experiments] work and their expertise so that it will be possible to produce a replacement weapon should the Government ever ask it of us.²³

A. The Timing of Decisions

The Defence Select Committee was told in March 1995 that there was at present no reason to suppose that the Trident system as a whole could not last at least 25 years and that, as far as the missiles were concerned, the Americans were now beginning to think in terms of 30 years.²⁴ This means that, if there is no major shift in the strategic environment, and assuming that it could once again take 15 years to bring a replacement system into service, preliminary decisions about what, if anything, should follow on from Trident might have to be taken about ten years from now, ie in around 2005.

The decision might perhaps be postponed if there is a high level of confidence in the warhead design and its ability to counter defence systems. On the other hand, there are factors which could make it necessary to bring forward the decision, for example if the strategic threat once again became more worrying, or if a flaw were to emerge in the Trident warhead design which limited its "shelf-life".

Changes to the strategic environment could include developments in anti-missile technologies of the kind envisaged when the USA launched its strategic defence initiative, new technological threats to the present near-invulnerability of the submarines on patrol, the adoption of an aggressive stance by future Russian or Chinese governments or the proliferation of nuclear-weapon states in defiance of the Non-Proliferation Treaty.

B. The Emerging Strategic Environment

Under the Reagan Administration in the 1980s there was much discussion of possible developments in anti-missile technology which might make it possible to intercept and destroy

²³ HC 350 of 1994-95, p14, Q 1572

²⁴ Progress of the Trident programme, Eighth report from the Defence Committee, HC 350 of 1994-95, evidence, Q 1587.

missiles carrying strategic nuclear weapons after their launch. Such developments are currently constrained by the ABM Treaty of 1972 which was designed to prevent a race between the USA and the USSR into this potentially highly destabilising activity. While the plan to build a shield against incoming nuclear weapons had an obvious appeal, there was much concern that the creation of defence systems which were anything less than 100% efficient might merely spur both superpowers to expand even further their already huge arsenals of warheads in order to ensure that a certain quantity of warheads would always penetrate the shield, and thus maintain mutual deterrence. It was also feared that a partial defensive shield might seem sufficient to guard against a weakened retaliatory strike and might therefore tip the balance in favour of one side attempting a pre-emptive nuclear attack.

The Soviet Union under Mikhail Gorbachev expended great diplomatic effort on persuading the US Government to maintain its previous commitments under the ABM Treaty because the Soviet Union would have had great difficulty in keeping up in strategic defence technologies and might have had little choice, assuming that it was committed to maintaining a strategic balance with the USA, but to increase its own offensive capability.

In the event subsequent US administrations have chosen to stay within the limits imposed by the ABM Treaty and have concentrated research activity in the field of tactical missile defence which is intended to protect against a limited missile attack, for example by a regime such as those in Iraq or North Korea. The Russian Federation is also believed to be working on some similar projects.²⁵ However, most of the technologies involved would be relevant to a future revival of interest in strategic defence.

The possibility of further developments in strategic defence over the lifetime of Trident can therefore not be excluded. Such developments could involve competition between the USA and Russia, as in the past, or a co-operative process (which could eventually involve amendment of the ABM Treaty by mutual agreement), but in either case there could be significant implications for the other nuclear weapon states, including the UK, which could find their deterrent posture undermined unless they were able to find the resources to expand their offensive capability and improve the chances of their warheads penetrating a defence system. It was concern about improvements in the Soviet missile defences around Moscow which prompted the UK to develop Chevaline as an upgraded warhead for Polaris in the 1970s.

Other factors to be taken into account will clearly include future assessments of the potential military threat from both Russia and China. In the last few years the collapse of the whole economic and political structure of the Soviet Union has been such that it seems inconceivable at present that Russia will be able to reassert the control which it previously

²⁵ Alexei Arbatov, "The ABM Treaty and theatre ballistic missile defence", *SIPRI Yearbook 1995*, 686-7.

had over the former Soviet republics, let alone restore the military ascendancy in Eastern and Central Europe which it held from 1945 to 1989. Moreover, despite some setbacks, there are still many indications that the emerging Russian economy, and to a lesser extent the political system, will be founded much more on co-operation with other states and international organisations than was the case in the communist period.

This is not to say that there will never be a return to military confrontation between Russia and NATO at a strategic level. The emergence of an aggressive extreme nationalist regime in Moscow cannot be ruled out. It seems unlikely at the present time that even a fascist-type regime in Russia would find any advantage in returning to a nuclear arms race against the West, but if it did there could be a case for Britain and France to modernise and expand their nuclear forces in the next century to provide a European deterrent to the threat, independently of any response which the USA might make.

Similarly, the nuclear weapon capability of China could become a matter of increasing concern in the next century according to some scenarios. This factor is certainly present in United States strategic calculations²⁶ and has not been overlooked by the British Ministry of Defence judging by Mr Rifkind's response to a parliamentary question on 6 June 1995:

The hon. Gentleman ... is certainly correct to emphasise that China is expanding its military potential very substantially. We have noted particularly the testing of the intercontinental ballistic missile which we understand could have a range in excess of 6,500 km and thus would be able to target Western Europe in due course. The matter clearly justifies serious attention in the months ahead.²⁷

Another factor which could influence eventual decisions about a Trident replacement is the extent of nuclear weapon proliferation over the next decade. In theory the Non Proliferation Treaty, now extended indefinitely, should deal with this threat, but in practice some states (eg Iraq) are now known to have tried to acquire nuclear weapons despite being party to the Treaty and other states with definite nuclear weapon interests and potential, such as Israel, India and Pakistan, have remained outside the NPT system. In the cases of Iraq and North Korea the recognised nuclear weapon states led by the United States have taken determined action to head off the threat well before an operational capacity was achieved, but it cannot be guaranteed that the nuclear weapons monopoly will hold indefinitely. The likelihood is that, if significant proliferation does take place, the main burden of the response will fall on the United States and Russia, but restraints such as the proposed CTBT could fall away in these circumstances, leaving Britain and France free to formulate a national or European response.

²⁶ see Defense Department evidence to the House Committee on Foreign Affairs, 5 October 1994, p22.

²⁷ HC Debates, 6 June 1995, c9.

If, on the other hand, the Non-Proliferation Treaty succeeds and becomes truly universal (ie if states such as Israel, India and Pakistan accede) then all the nuclear weapon states will come under pressure to maintain progress towards nuclear disarmament.

C. A Changing Context for Nuclear Weapons?

The end of the cold war has coincided with the emergence of a new international agenda which concentrates on ecological issues such as global warming and the threat to bio-diversity and gives increased emphasis to international cooperation in achieving the greater enjoyment of individual human rights, including the rights of women and children. Nuclear deterrence, as long as it succeeds in its aim of preventing war, need not be incompatible with promoting human rights and protecting the eco-system, but the shift of perspectives and priorities which is implied by the new international agenda does raise questions about the role of nuclear weapons and the continuing political acceptability of expenditure on nuclear deterrence in the next century and the extent to which the monopolisation of nuclear weapons by a small number of states will be sustainable.

With the partial exception of China, where free expression is severely curtailed, the governments of the nuclear weapon-possessing states find themselves under growing pressure from non-governmental organisations both at home and abroad to shift their priorities away from nuclear deterrence and towards other programmes which do not involve the same ethical dilemmas. There has, for example, been a sustained campaign to have the possession of nuclear weapons declared illegal on the grounds that their effects are potentially far more indiscriminate and "excessively injurious" than conventional weapon systems which have already been outlawed on these grounds under the Inhumane Weapons Convention. In recent years NGOs from many countries have co-ordinated their efforts to a high degree and form a permanent international lobby.

This raises the question as to what extent nuclear deterrence can exist outside of the general framework of international relations and international law and not become part of the agenda for international co-operation in trade, the environment, human rights etc. Clearly the answer will depend a great deal on the factors referred to in the previous section. It is too soon to judge whether the apparent turn towards more cooperative behaviour between the world's strongest military powers will become a permanent feature of the twenty first century, or not. It appears that the decline of colonialism and Marxism in their various forms, coupled with the rise of market-based trading blocs and the destructive potential of nuclear weapons, may have made it permanently less likely that national regimes will in future attempt to seize territory by aggression, as they have in numerous instances in the twentieth century. Again, it is too soon to be certain of this.

V British Political Issues

The main British political parties at Westminster no longer differ on the principle of bringing Trident into service as a replacement for Polaris, given the present policies of the other nuclear weapon states and the present state of arms control policies, but contrary views are occasionally heard from the nationalists and some Labour Party backbenchers.

The policy of the Conservative government is as set out in the *Statement on the Defence Estimates 1995*:

The introduction into service of the four Trident submarines will ensure that the United Kingdom retains a credible and effective minimum deterrent into the next century. (...) ... the Government has made clear that each submarine will deploy with no more than 96 warheads and possibly significantly fewer, and that the explosive power of the warheads deployed on each submarine will be about the same as for Polaris.²⁸

In 1994 the Labour Party conference adopted a resolution on nuclear weapons which was at variance with the policy upheld by the parliamentary front bench and which called for Trident to be cancelled. The resolution did not have sufficient support for it to become a manifesto commitment and in the debate on the defence estimates a few weeks later the shadow Defence Secretary, Dr David Clark said:

The next Labour government will deploy Trident, but will not deploy it with more nuclear warheads than the Polaris boats have now. At a time when nuclear disarmament is the order of the day, it seems crazy to us for any government to increase the number of nuclear warheads.²⁹

At the 1995 Labour Party conference a composite resolution (no 51) was adopted which backed the leadership stand on nuclear weapons. It did not refer specifically to Trident, but called upon the Government to:

place Britain's strategic nuclear weapons into international nuclear disarmament negotiations aimed at the global elimination of such weapons.

In September 1994 the Liberal Democrats adopted a policy statement on nuclear weapons which stated that while other states possess nuclear weapons the UK should retain an independent nuclear deterrent. The statement confirms that Trident could serve this purpose,

²⁸ Cm 2800, p38, para 302 and inset para 2.

²⁹ HC Debates, 17 October 1994, c59

but that no more warheads should be deployed on Trident than the maximum loading of Polaris.³⁰ In the debate on the 1994 defence estimates the Liberal Democrat defence spokesman Menzies Campbell reiterated:

We should say transparently that there will be no more warheads on Trident than the Polaris system which it is to replace - and, indeed, there may be fewer.³¹

In the same debate the Scottish Nationalist leader Alex Salmond questioned the need for any level of warheads:

The lunacy of the Trident missile system and the expenditure of £20,000 million or more on one aspect of strategic defence which in the modern world has been overtaken by events compares with the loss of key Scottish regiments for the lack of a few million pounds when an obvious defence need has been identified by Conservative Members for their use in peacekeeping roles in Europe and elsewhere.³²

Outside Parliament organisations such as CND and Greenpeace continue to campaign against the retention of nuclear weapons. In July 1995 the British Pugwash Group (the British branch of an international network of scientists concerned with nuclear weapons issues and security) published a report which argues that "Britain does not gain significant influence or prestige from its possession of nuclear weapons" and "if Britain were to relinquish its nuclear weapons its security would not be reduced, but its conventional contribution to collective security should be sustained". The suggested remedy is that the UK should proceed towards complete nuclear disarmament by stages linked to multilateral negotiations. The report also criticised the way in which the nuclear weapons issue has been handled by the main British political parties:

... the nuclear weapons programme has been maintained and developed both as a result of military inertia and because of the political paralysis induced by the fact that nuclear weapons have been used as a weapon in domestic politics... A kind of collective political cowardice has meant that in the UK there has been hardly any serious rethinking of nuclear issues at all.³³

In the October 1995 issue of *International Affairs* Robert O'Neill argues that Britain could be well placed to take the initiative over the long term goal of general nuclear disarmament in the next few years, precisely because the Trident programme is nearing completion and Britain can therefore afford "to mark time without having to decide whether to acquire further

³⁰ *Shared Security: Security and Defence in an uncertain world*, Liberal Democrat Policy Paper 6, September 1994, pp 24-5

³¹ HC Debates, 17 October 1994, c77

³² HC Debates, 18 October 1994, c210

³³ C.R. Hill, R.S. Pease, R.E. Peierls, J. Rotblat, *Does Britain need nuclear weapons?*, British Pugwash Group, 1995, pp 52, 57, 61.

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nuclear weapons for many years". He argues that the move towards a nuclear-weapons-free world, though highly desirable, would require a great deal of preparatory work and agreement on giving a substantial degree of authority to an international body for enforcement and verification. As far as domestic political considerations are concerned he claims, "there might even be a domestic political advantage for a major British party which takes up the cause of a nuclear-free world".³⁴

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³⁴ Robert O'Neill, "Britain and the future of nuclear weapons", *International Affairs*, October 1995, pp 758-61.

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