SND 64

Memorandum submitted by the Oxford Research Group

- 1. Introduction
- 1.1. Dr John Reid has indicated that the Government's Manifesto pledge to retain Britain's

nuclear deterrent applied technically for the life of this Parliament, though he thought

- "all reasonable people would assume it to apply for the life of the Trident system". [i] Significantly he did not suggest that it should predetermine the position of the Government or his Party in the discussion on replacing that system.
- 1.2. Dr Reid also expressed the view that: "It is not absolutely essential that you have a cross-

party consensus but in my view that would be desirable. It is also desirable with any such

important issues that there is the maximum information and consensus across the public as well as across Parliament."[ii] There would doubtless be common agreement to these sentiments across all Parties, the issues are of such gravity that they should transcend political pointscoring and sloganising, and merit an objective and openminded approach and thorough debate.

1.3. The Government has not produced a comprehensive review of nuclear policy since the

end of the Cold War. [iii] In vastly changed circumstances, different potential threats should be assessed. In an unpredictable world absolute security against all conceivable threats is not possible, it is therefore necessary to analyse probabilities and priorities, and compare the relative potential risks of different policies.

1.4. The Prime Minister has expressed certainty that "there will be the fullest possible

Parliamentary debate", but would neither commit himself to, nor rule out a vote.

However he did say: "It is a huge decision for the country and it will probably be done in a far more open way than decisions have been taken before". [iv] An interesting precedent is 1-2 March 1955, when there was a two day debate, in which the Prime Minister [Churchill] and Leader

of the Opposition [Attlee] both made major speeches and which concluded with a vote.

2. Strategic Context

2.1. Positive Developments

- 2.1.1. There would be common agreement that some developments have substantially improved our common security. The most significant of these is the ending the Cold War and the Nuclear Arms Race. [v]
- 2.1.2. The nuclear arms control regime, particularly The $Nuclear\ Non-Proliferation\ Treaty\ (NPT)$, has been far more successful than most experts were predicting a few decades ago. [vi]
- 2.1.3 It was ultimately shown in Iraq, that containment and inspections had forced an unwilling state to disarm. Pressure and diplomacy have persuaded Libya to abandon its attempt to obtain nuclear weapons. Other countries such as Brazil and Argentina have done so voluntarily, and Ukraine and South Africa have voluntarily renounced nuclear weapons which had already been developed and deployed.
- 2.1.4 If an African Treaty is successfully negotiated, there will be Nuclear Weapons Free Zones throughout and beyond the Southern Hemisphere.

2.2. Causes for concern

- 2.2.1. There are however growing causes for concern including: the de facto nuclear weapons states outside the NPT Israel, India, and Pakistan; North Korea which has left the NPT and whose claim to have developed nuclear weapons is almost certainly true or nearly so; Iran which threatens to leave and might develop a capacity within several years. There are a growing number of 'latent'/'threshold' nuclear weapons states, which if they made the political decision could convert civil nuclear programmes to weapons production. There is the danger that any actual or potential nuclear weapons state, which currently seems stable or unthreatening, may change regime.
- 2.2.2. As the Prime Minister has said "the A Q Khan network showed, there is an export market in this" [vii]: non-state actors as well as states may transfer nuclear weapons capacities for commercial and/or ideological reasons.
- 2.2.3. There is the increasing threat of nuclear terrorism.
- 2.2.4. "The proliferation of delivery system technology is

every bit as much a matter for concern as the weapons of mass destruction themselves."

[viii] Sensationalist reports tend to exaggerate the present and potential ballistic missile capacity of states of concern. However, despite the Missile Technology Control Regime, there is a clear risk that long-range rocketry will gradually spread. This is complicated by the possibility of dual use technology, for civil purposes - such as communications satellites - and for military applications.

- 2.2.5. Despite its immense success, the NPT has serious weaknesses including:
- a) The Treaty (Article IV) gives parties the inalienable right to develop civil nuclear technology and promises them assistance to do so. However the potential risk of 'dual use' was underestimated. This has been succinctly expressed by Professor Michael MccGwire:

"The other problem was 'dual use' - the fact that materials and technology required for legitimate, peaceful purposes can also be used (diverted) to produce weapons. The essential elements of a nuclear explosive are highly enriched uranium and/or separated plutonium. Uranium is also used to fuel nuclear power reactors, and for that purpose natural uranium has to be enriched so that the proportion of U235 is close to 5 per cent. By repeating this process of centrifugal enrichment once, the proportion of U235 rises to more than 25per cent. A second repetition (i.e. a total of three passes) results in 93per cent highly enriched uranium (HEU), which is weapons grade. Similarly, weapons-grade plutonium contains at least 93 per cent Pu-239. Plutonium is a by-product of burning uranium in a nuclear reactor, and is separated out in a chemical reprocessing plant. In sum, if a state has a self-sufficient capability to generate nuclear power, it also has the potential to produce an explosive device."[ix]

- b) The number of potential nuclear weapons states, currently around thirty, is therefore liable to grow.
- c) The nuclear weapons states which have not joined or have left the Treaty.
- $\ensuremath{\mathtt{c}}\xspace)$ Non-nuclear weapons states doubt the good faith of the nuclear weapons states to

fulfil their treaty obligations, not least to move towards nuclear disarmament on a realistic scale or time-table. This leads to accusations of double standards. "We must abandon the unworkable notion that it is morally reprehensible for some countries to pursue weapons of mass destruction yet

morally acceptable for others to rely on them for security-and indeed to continue to refine their capacities and postulate plans for their use." [Mohamed ElBaradei, Director General, International Atomic Energy Agency]. [x]

d) These last two factors [2.2.5(c)] and (d) above] undermine international unity in

dealing with problem states such as Iran.

- 2.2.6. Such flaws in the arms control regime have been used by some in the US, to argue for imposing counterproliferation measures primarily by military force, unilaterally or with coalitions of the willing. Such policies have been incorporated in current US administration strategy documents, [xi] but potential risks should not be underestimated. Multilateralism and international treaties could be undermined, while proliferation might be encouraged if states seek a nuclear deterrent against "pre-emptive" attack. The choice and treatment of 'friendly' states can seem capricious, and because the strategy is apparently inequitable and relies on military might, it is inherently provocative and unstable. Early resort to war rather than diplomacy is immensely threatening in a world with nuclear weapons.
- 2.2.7. Despite its imperfections "the NPT remains the cornerstone of the nuclear non-proliferation regime and the framework for nuclear disarmament" [UK Statement at NPT Review Conference 2005]. [xii] It is the only almost universal security regime, but needs to be strengthened and reinforced, and that will be difficult. The UN Secretary General's High-level Panel (2004) warned: "We are approaching a point at which the erosion of the nonproliferation regime could become irreversible and result in a cascade of proliferation. "[xiii] The failure to reach agreement on this, at both the NPT Review 2005 and at the UN Summit, has made this situation even graver. Particular responsibility must rest on the P5, because of their role in the UNSC, and official status as nuclear weapons states. As the UK has said "the NPT is a treaty for us all, it is a treaty from which there can be no turning back, no evasion of our responsibilities - all our responsibilities."[xiv]

2.3. Deterrence and potential threats to UK

2.3.1. Nuclear Terrorism While most political terrorist groups would regard causing fatalities on a vast scale as likely to undermine their support-base, a tiny minority of fundamentalist, absolutist or apocalyptic groups - like Aum Shinrikyo or al Qaida - could attempt nuclear terrorism.

Despite claims by President Chirac, [xv] nuclear deterrence can have little relevance to this threat. Such groups will not necessarily be identified with any country or any easily located geographical position, they are quite likely to be suicidal and indifferent to- or might even welcome - the deaths of non-members of the group in their vicinity, particularly if fomenting conflict is one of their objectives. Most analysts would agree with the Prime Minister: "I do not think that anyone pretends that the independent nuclear deterrent is a defence against terrorism." [xvi]

- 2.3.2. Invasion During the Cold War some saw UK nuclear weapons as a deterrent against invasion. Liam Fox still argues that "the prospect ... cannot be ruled out ... that a hostile power might overrun the European Continent without a global nuclear conflict resulting" and that it would then be deterred from attacking Britain by the greater chance that the UK as compared with US would use nuclear weapons. [xvii] With due respect to Dr Fox, this reads like a scenario drawn up during the Cold War, which takes insufficient account of subsequent realities. If the future hostile power is assumed to be Russia - which might be inferred from Dr Fox's Heritage Foundation lecture [xviii] - the possibility that at some point a Russian Government could become antagonistic cannot be ruled out. However the Warsaw Pact and the Soviet Union are dissolved, NATO and the EU have expanded, there is now a massive power imbalance between NATO and Russia. If some other large country is seen as a potential "hostile power" - China(?), India(!) - the scenario is even less credible. It may be claimed that no possibility can be 'ruled out', but it was an eminent Victorian statesman, who when the Generals urged him to increase the army in India in case the Czar tried to attack Britain via the sub-continent, inquired if they wanted to garrison the Moon to prevent invasion from Mars.
- 2.3.3. Biological/chemical attack Though the term Weapons of Mass Destruction can be useful, it has dangerously blurred the vast difference between nuclear weapons and most biological or chemical weapons. [xix] Even large quantities of highly lethal biological or chemical agents cannot easily be converted into usable weapons which would cause death on a massive scale. Geoff Hoon, when he was Defence Secretary implied at the Defence Select Committee [xx] and in subsequent media interviews that UK nuclear weapons might be used in response to or even in pre-emption of a biological/chemical weapons attack. However he subsequently confirmed in response to a Defence Question on 15th July 2002, "that British Government policy has not changed since John Major, during the Gulf War, explicitly ruled out the use of British nuclear weapons against Iraq, even in reply to a chemical or

biological attack on our forces, on the grounds that a proportionate response could be made using conventional weapons and that Britain would never breach the Nuclear Non-Proliferation Treaty." [xxi] Though the question was specific to Iraq, the answer presumably reflects a continuous general policy of Conservative and Labour Governments.

- 2.3.4. Nuclear attack Looking ahead to 2031 the Ministry of Defence has reckoned that "the risk of air-launched WMD attacks will remain very low". [xxii] Only the other Permanent Members of the Security Council currently have the capacity to launch nuclear missiles at the UK, and strengthening nonproliferation may be the best way of maintaining this situation. There is no credible scenario for being threatened by any other state within our region. With the end of Empire there is limited possibility of Britain being involved in unilateral confrontation - let alone nuclear confrontation - outside our region. Any involvement outside our region is liable to be as part of UN, or NATO or - at least - as an ally of the USA. In which case any state considering threatening the UK with nuclear attack would have to take account not only of the immense political consequences, but the deterrence of the largest conventional and nuclear forces in the world.
- 2.3.5. The vast change in the strategic context in which the UK Nuclear Deterrent should now be viewed has been judiciously expressed by Professor Michael Clarke (commenting on Sir Michael Quinlan's observation [xxiii] that the "case for a degree of nuclear independence is manifestly less strong now than it used to be" when decisions were taken in the 1980s, and that there will be "an important and challenging debate to be had" when replacement is considered):
- 2.3.6. "The most obvious difference between 2008 and 1980, and even more between 2008 and 1963, in the 'debate to be had' is that the rationale for a strategic nuclear deterrent-that is, a weapons system capable of crippling even a large country in strikes on its homeland-is increasingly weak. A world dominated by a single superpower hegemon, whose overwhelming nuclear superiority represents much less than its full capacity for such superiority, is not a world which gives minor players much of a role in strategic deterrence. It is scarcely conceivable (even as a long-term defence planning assumption) that other known nuclear powers such as India, Pakistan, Israel or North Korea, or for that matter a near-nuclear power such as Iran, could become a strategic threat to the UK homeland (in isolation from other traumatic events), whatever British interests might be threatened abroad by such actors in some unforeseen circumstances. The essence of a case for a

genuinely strategic deterrent rests on the danger of the UK being drawn into a nuclear crisis between its ally the US, and perhaps Russia or China; or else somehow being involved, perhaps with France, on behalf of the Europeans to confront a resurgent Russia making nuclear threats in ways that question our survival, and in the absence of US involvement. In principle, such circumstances could arise — as indeed could circumstances in which the US turns vengefully and coercively on its former allies — but none of these existential possibilities are worth much of the time of a policy planner, still less a politician; and as Sir Michael Quinlan implies, they would be unlikely to attract the resources necessary to hedge against such exotic scenarios when the next major financial commitments have to be made. "[xxiv]

- 2.3.7. Both Quinlan and Clarke seem to imply that if the UK did not already have a strategic nuclear deterrent, we might be unlikely to develop one now. Political inertia is scarcely an adequate basis for such an important decision. If Britain needs an independent SND, then presumably the same would apply to, say, Italy or Germany. Indeed if the UK, which faces no current relevant external threat, requires its own SND, what are the implications for Iranian strategists? They know that influential figures in two nuclear powers - Israel and the USA - are openly advocating attacking their country. Westminster's decision is unlikely to have key influence in Tehran. [xxv] However more generally it can be either a helpful or unhelpful factor at a crucial time for the survival of the non-proliferation regime, and the maintenance of that regime could be decisive in determining which states "develop nuclear weapons capabilities by 2025."[xxvi]
- 2.3.8. The probability of some of the future risks against which it is suggested the UK might

require a nuclear deterrent should be weighed against the probability of some of the risks if the non-proliferation and disarmament regime breaks down: "arms competition between China and the United States (not to mention the risk of a hot war over Taiwan); nuclear crises in the Middle East and South Asia; a chain reaction of proliferation following the erosion of the NPT; the spread of less sophisticated nuclear weapons technology and command and control systems; a continuing trend to the 'conventionalisation' of nuclear weapons as complacency grows with the fading of the memory of Hiroshima and the weakening of the power of the nuclear taboo; new opportunities for private enterprise nuclear weapons entrepreneurship; crisis naivety rather than crisis management skills; new threats of spectacular nuclear terror; and on and on."[xxvii]

2.4. Other strategic issues

- 2.4.1. Britain's permanent membership of the UN Security Council is based on our role in World War 2, and not our subsequent acquisition of nuclear weapons. Japan and Germany are not receiving less consideration as potential new Permanent Members of the UNSC than India, because they have not developed nuclear weapons. There is no rush to accord that status to Israel, Pakistan or North Korea.
- 2.4.2. Nye Bevin's "naked in the conference chamber" is of doubtful current relevance. For decades the major arms reduction talks have been bilateral USA and USSR/Russia or when multilateral have included non-nuclear weapons states. It is unlikely that a UK decision to replace or not replace Trident would greatly affect the extent of UK influence in arms control negotiations or other international meetings, which depends more on an ability to co-operate with other states or groups of states.
- 2.4.3. The UK should be careful of parochially overestimating its world role. On the one hand those advocating disarmament initiatives can exaggerate the likelihood of other countries following Britain's example. On the other hand, claims that French nuclear weapons kept the peace of the world during the Cold War tend to be viewed sceptically in the UK. Similar claims for the British deterrent may seem just as dubious abroad. Perhaps British and French nuclear forces were an irrelevance in a deterrent balance of terror between the two superpowers. Another viewpoint was expressed by Michael Portillo, [xxviii] who while remaining convinced that that the UK deterrent was relevant during the Cold War, doubts if it is now.
- 2.4.4. The independence of the UK SND from the USA, in various respects, is a subject of strong debate. [xxix]
- 2.4.5. The effects either way of decision on UK SND on US-UK relations would be limited. Perhaps reflecting 2.4.3, it is largely a matter of comparative indifference across the political spectrum in the USA. Because of 2.4.4 the effect on UK dependency on the US is difficult to predict.
- 3. Timetable for decision-making

3.1. Practical Limits

- 3.1.1 John Reid has said: "It is not absolutely essential the decision is taken during this Parliament but it would be highly desirable in my view." [xxx]
- 3.1.2 As Dr Reid indicated decision during this Parliament

is not essential. Warheads can be refurbished every 12 years, the D5 missile system is expected to available on lease from the US "into the 2040s", [xxxi] onshore infrastructure can be maintained. It is only the submarine hulls which were expected to have a life expectancy of 25-30 years, but since then time at sea has been reduced. Deep diving causes the main stress on the hulls, but this is not an operational necessity in times of reduced tension, and if it were restricted within such requirements as testing and training, their durability could be significantly extended. If a replacement were decided on which was very similar to Trident, the lead time for producing it would be shorter. Commodore Tim Hare, Former MoD Nuclear Policy Director suggests decisions "will not have to be taken for some time yet and certainly not before 2010."[xxxii]

3.2. Possible advantages of delay

- 3.2.1. Deferring a decision could be highly desirable for a number of reasons.
- 3.2.2. At a time of considerable uncertainty, there would be more opportunity to see how the international situation develops.
- 3.2.3. Given the UK's high dependency on the US, if a replacement is decided on, then late decision reduces the risks of late changes in US procurement plans proving costly to the UK once again. If the developing international situation did not justify replacement, then delay would obviously bring greater savings.
- 3.2.4. Crucially the risk of collapse of the nonproliferation regime could make this a dangerous time to decide to replace Trident. In recent years under Conservative and Labour Governments, the UK has reduced its nuclear weapons and taken other disarmament and confidence building measures, such as de-alerting, de-targeting, reducing patrols, the Comprehensive Test Ban Treaty and the Additional Protocol to IAEA safeguards agreements. This has been in response to perceived reduction in risk with the end of the cold war, but also the UK would claim as a contribution to non-proliferation and multilateral disarmament. Great Britain has gained respect from nonnuclear weapons states for moving in this direction and for its constructive role in non-proliferation negotiations, e.g. at the NPT review conferences of 1995 and, in particular, 2000. There could be a risk that if at this time the UK appears to effectively commit itself to retaining nuclear weapons until the middle of the twenty first century, this will be seen as altering the UK's positive policy, [xxxiii] further proving that the nuclear weapons

states are disingenuous about making progress in disarmament and further undermining non-proliferation.

- 3.2.5. Britain is sometimes accused of having post-imperial delusions of grandeur, obsessed with 'punching above our weight'. However an area where we might claim to have punched above our weight, with broad cross-party consensus and international respect, is in taking or supporting initiatives on major world problems, such as climate change, global poverty, and a range of arms control and arms export control measures. There is urgent need to preserve and strengthen the nuclear non-proliferation and nuclear disarmament regime. As has been admitted, we can have limited influence on our own [see above 2.4.3], but if we co-operate with others, including EU partners and - in this case - some of the groupings of non-nuclear weapons states, progress might be made. A natural focus for this would be the NPT Review Conference 2010, and deferring a decision on strategic nuclear deterrent replacement at least until then would give the UK greater credibility and flexibility in negotiation. Given the urgency of the situation, serious consideration should also be given to other proposals, such as Kofi Annan's suggestion of a UN Conference on nuclear weapons, in order to also involve those nuclear weapons states which are outside the NPT. [xxxiv]
- 3.2.6. Delaying the decision could permit the Government to establish an independent inquiry or even Royal Commission, if thought appropriate to fully assess all aspects of the decision on SND in the post Cold War situation. Parliament could also have time to consider thoroughly all the issues. Since Defence is increasingly foreign policy led, and in a globalised world national security often relates to the common security of the international community, the Defence Select Committee might wish to consider a major joint inquiry with the Foreign Affairs Select Committee. Perhaps 1955 set an interesting precedent for debate in Parliament [see 1.4 above].
- 3.3. Summary and Conclusions
- 3.3.1. It is not technically necessary to take a decision during this decade.
- 3.3.2. Because of uncertainties in the international situation, and possibly on economic grounds there could be advantages in deferring a decision.
- 3.3.3. Given the parlous state of the NPT and the whole nuclear arms control regime, there are strong grounds for delaying a decision at least until the conclusion of the NPT Review Conference 2010.

- 3.3.4. During that time the UK should make strenuous, cooperative diplomatic efforts to revive the NPT and the whole nuclear arms control and multilateral disarmament regime.
- 3.3.5. That time could also be used for Government and Parliament to undertake a comprehensive review of the relevance of the UK SND in the post Cold War world.

Notes

[i] J Reid, Oral Evidence, Defence Select Committee
[01/11/2005], Q2.

[ii] J Reid, Oral Evidence, Defence Select Committee [01/11/2005], Q5.

[iii] "The Strategic Defence Review", though stating that there had been "a rigorous re-examination of our deterrence requirements", did not seek to give a detailed analysis of the strategic relevance of the UK nuclear deterrent, and indeed Essay 5, Para 5 bases the requirement for the SND on the Labour Government's 1997 General Election Manifesto rather than strategic analysis.

[iv] In responding to James Arbuthnot at Liaison Committee on 7 February 2006, Q275-277, [Uncorrected transcript]. The following caveat applies to all uncorrected Committee transcripts. "Any public use of, or reference to, the contents should make clear that neither witnesses nor Members have had the opportunity to correct the record. The transcript is not yet an approved formal record of these proceedings."

[v] Though the threat then may have seemed less complex, the consequences of major conflict would have been absolutely catastrophic. As the Cuban missile crisis showed, the risks were far too great. The probability of war occurring through accident, misunderstanding or design was too high to provide indefinite security.

[vi] In March 1963, President J F Kennedy expressed concern that by the early 1970s there might be "15 or 20 or 25" nations with nuclear weapons. While retrospectively in 2004, George Bunn, one of the US negotiators of the original NPT, claimed that without the Treaty "30-40 countries would now have nuclear weapons"

[vii] Liaison Committee, [Uncorrected transcript], 7
February 2006, Q296.

[viii] Foreign Secretary Robin Cook in oral evidence to the Foreign Affairs Select Committee, FASC Report on "Weapons of Mass Destruction", 25 July 2000, pxxxvi.

[ix] M. MccGwire, "The rise and fall of the NPT: an opportunity for Britain", International Affairs 81, 1 (January 2005), pp 115f.

[x] Published in International Herald Tribune, 13 February 2004

[xi] The National Security Strategy of the United States of America, 2002, etc.

[xii] Ambassador John Freeman, Head of UK Delegation to the 7th Review Conference on the Treaty on the Non-Proliferation of Nuclear Weapons, NY, May 2005, para 4.

[xiii] "A more secure World", Report of the High-level Panel
to UN Secretary-General, p39, para 111.

[xiv] Ambassador John Freeman, 7th NPT Review, para 3.

[xv] Speech 19 January 2006, q.v. reports Washington Post, Associated Press, FT, Guardian, Independent, Carnegie EIP, etc.

[xvi] Prime Minister's Questions, 19 October, 2005, Column 841, Q3 [Responding to Paul Flynn].

[xvii] Liam Fox, "Is there a sound political rationale for the UK retaining its nuclear weapons?" The Future of Britain's Nuclear Weapons: the experts debate the issues. Current Decisions Report. Oxford Research Group. March 2006. p.17

[xviii] Liam Fox, Making Sense of the Special Relationship, The Heritage Foundation, USA, 16 February 2006.

[xix] "There is no comparison between the strategic destructive power of nuclear weapons on the one hand and of chemical and biological weapons on the other". Michael Clarke, Does my bomb look big in this?, International Affairs, January 2004, p57. This point has been made repeatedly over the years by many and varied authorities, from the US National Academy of Sciences to the Butler Report, but merits further repetition in the light of recent history and continuing sensationalist reporting.

[xx] Geoff Hoon, Oral Evidence, Defence Select Committee, 20
March 2002, Subsequently on Jonathan Dimbleby programme 24
March 2002, and see also Defence Questions, 29 April 2002,

Q13, Columns 665f.

[xxi] Defence Questions, 15 July 2002, Columns 10f, cf. Early Day Motion 1707 [Session 2001-2], (23.07.2002).

[xxii] "The Future Strategic Context for Defence", MoD, February 2001, p19, para 89.

[xxiii] Sir Michael Quinlan, "Weapons of Mass Destruction: threat and response", inaugural lecture in the Quinlan Lecture Series, International Policy Institute, King's College, London.

[xxiv] Michael Clarke, Does my bomb look big in this?, International Affairs, January 2004, p56

[xxv] Though the significance of Britain's role in the
difficult and delicate E3 diplomacy should not be forgotten.

[xxvi] From the terms of reference of this Defence Select Committee inquiry. [Cf 2.1.2 above and Endnote 6, as with past predictions, whether the more pessimistic or optimistic forecasts the Committee receives on this are fulfilled, must surely depend on the robustness of the non-proliferation regime.]

[xxvii] Ken Booth, "Debating the future of Trident: who are the real realists?" The Future of Britain's Nuclear Weapons: the experts debate the issues. Current Decisions Report. Oxford Research Group. March 2006 p.77.

[xxviii] Michael Portillo, Does Britain need nuclear missiles? No. Scrap them, Sunday Times, June 19, 2005.

[xxix] Q.v., e.g., for opposing views on some aspects of independence, Dan Plesch, "Britain's independent deterrent is purely a political myth", The Independent, 31 October 2005: Tim Hare, "Should the decision on Trident replacement be a subject of public and parliamentary debate, and can it be influenced?" The Future of Britain's Nuclear Weapons: the experts debate the issues. Current Decisions Report. Oxford Research Group. March 2006. p64; and cf. Ken Booth, Ibid, p81.

[xxx] J Reid, Oral Evidence, Defence Select Committee [01/11/2005], Q5.

[xxxi] MoD Memoranda to this inquiry, Annex B.

[xxxii] Tim Hare, Ibid, p61

[xxxiii] "But these positive steps will be reversed if we

now charge off in the opposite direction by ordering a brand-new nuclear system." Robin Cook, "Worse than irrelevant", Guardian, Friday July 29, 2005.

[xxxiv] Referred to by Ambassador Jayantha Dhanapala, then UN Under Secretary-General for Disarmament Affairs, "Eliminating Nuclear Arsenals: the NPT pledge and what it means", Address to a Joint Meeting of the All-Party Parliamentary Groups on Global Security and Non-Proliferation, World Government and the Parliamentary UN Group, 3 July 2000.

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