



Future of the British Nuclear Deterrent: A Progress Report

Standard Note: SN/IA/5150

Last updated: 10 August 2010

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Section International Affairs and Defence Section

In December 2006 the Labour Government published a white paper entitled *The Future of the United Kingdom's Nuclear Deterrent*, which set out the Government's principal recommendations for replacing the UK's nuclear deterrent beyond the 2020s. A debate and vote in the House of Commons on the general principle of whether the UK should retain a strategic nuclear deterrent beyond the life of the current system was subsequently held on 14 March 2007, during which the Government motion was approved by 409 to 161 votes.

The intention of this note is to provide a brief update on the status of the programme, the decisions that have yet to be taken and examine the debate on the feasibility of replacing the UK's nuclear deterrent in the current economic and political climate. Initial Gate of the programme is expected toward the end of 2010.

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1 Background

The Labour Government published its White Paper on replacing the UK's strategic nuclear deterrent in December 2006. That paper concluded that renewing the UK's minimum nuclear deterrent would be fully consistent with its international obligations, mainly under the *Nuclear Non-Proliferation Treaty* (NPT); that retaining a submarine-based system would provide the most effective deterrent; that the UK would participate in the current US service-life extension programme for the Trident II D5 missile which will be deployed aboard the new submarines until the early 2040s and that the outright procurement costs of a successor system would be in the region of £15-20bn (2006-07 prices). In-service through-life costs were expected to be approximately 5-6% of the overall defence budget. Going forward that White Paper also noted:

- A decision on the refurbishment or replacement of the warhead would be required in the post 2010 Parliament.
- A decision on the number of submarine platforms to be procured would be taken once more detailed information on their design became available.
- A contract for the submarines would be placed between 2012 and 2014. A decision on whether the submarines would be manufactured in the UK would be taken in the lead up to this contract placement.
- A decision on participating in any US programme to develop a successor to the Trident II D5 missile system would not be necessary until the 2020s.

A debate and vote in the House of Commons on the general principle of whether the UK should retain a strategic nuclear deterrent beyond the life of the current system was subsequently held on 14 March 2007.¹ That debate was on the government motion:

That this House supports the Government's decisions, as set out in the White Paper The Future of the United Kingdom's Nuclear Deterrent (Cm 6994), to take the steps necessary to maintain the UK's minimum strategic nuclear deterrent beyond the life of the existing system and to take further steps towards meeting the UK's disarmament responsibilities under Article VI of the Non-Proliferation Treaty.

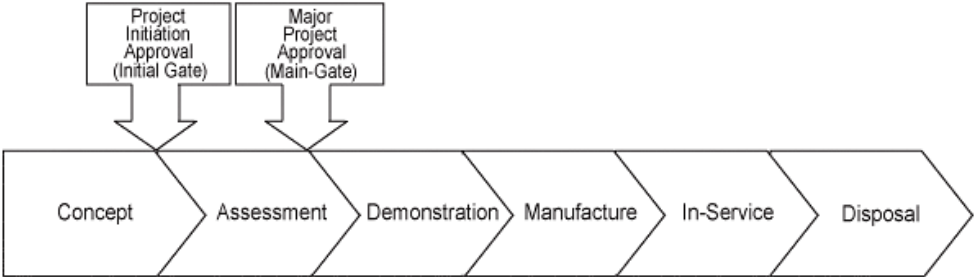
That motion was approved by 409 to 161 votes.

Since the debate in March 2007 there has been no further government-led debate on the replacement of the nuclear deterrent, or any of its associated issues, on the Floor of the House.

A list of Library material which provides further background on the issues relating to the replacement of the UK's nuclear deterrent is available in Library Standard Note [SN/IA/4207](#).

2 Procurement Status

The procurement of defence equipment in the UK is conducted, in the majority of cases, according to the following generic CADMID cycle:



The Initial Gate review assesses the feasibility of the programme going forward. Approval by the MOD's internal Investment Approvals Board is required at this point before funds can be released for the assessment phase. Approval at Initial Gate does not, however, commit the MOD to approval later on in the programme at Main Gate, which is the point when the main investment decision on a programme is taken.

The Trident successor programme is still in the early stages of the procurement cycle. Following the vote in the House in March 2007 work on the concept phase of the programme began and was expected to conclude at the end of September 2009 ahead of an Initial Gate submission to the MOD's Investment Approvals Board. That concept phase focused primarily on the replacement submarine and its associated propulsion system and in October 2007 the MOD opened a Future Submarine Integrated Project Team (IPT) office at Barrow in Furness to work in collaboration with the MOD's IPT office at Defence Equipment and Support in Abbey Wood. In conjunction with the MOD, BAE Systems, Babcock Marine and Rolls Royce have thus been undertaking work on developing the principal design parameters for the new

¹ A copy of that debate is available in Hansard: <http://www.publications.parliament.uk/pa/cm200607/cmhansrd/cm070314/debtext/70314-0004.htm#07031475000005>

class of submarine. As part of that work the then Prime Minister announced in March 2009 that the next generation of submarine would carry only 12 missile tubes, compared to the 16 missile tubes aboard the current Vanguard-class.²

The IPT also examined potential solutions for the manning, training and infrastructure of the future nuclear deterrent; while in August 2008 the MOD awarded an enabling contract to QinetiQ and a number of other partners including BMT, Jacobs and Frazer Nash, to provide independent support, resource and assurance for the concept phase of the programme. That contract was also expected to run until the end of September 2009. Deloitte had also been commissioned to provide ongoing independent validation of the cost model and of the cost inputs and assumptions that underpin that model, which were to be incorporated into the Initial Gate business case.

Other work has focused on gathering information in relation to the potential refurbishment or replacement of the UK's nuclear warhead. A decision on refurbishment or replacement is expected to be required at some point during the current Parliament. In answer to a Parliamentary Question on 8 July 2009 the then Secretary of State for Defence commented:

The UK's existing nuclear warhead design is likely to last into the 2020s, although we do not yet have sufficient information to judge precisely how long we can retain it in service. We are currently undertaking detailed studies to assess this and potential options for replacement should that be necessary. It is too soon to estimate the precise timing and the potential costs of any options beyond the £2-3 billion estimate, at 2006-07 prices, given in the 2006 Defence White Paper.³

2.1 Initial Gate

In December 2009 the MOD confirmed that an Initial Gate decision on the Trident replacement programme had been delayed until early 2010 in order to thoroughly assess the technical options available. In answer to a Parliamentary Question the MOD stated:

We had originally planned to consider the Concept Phase in autumn, but further time has been required to ensure that we take decisions based on robust information. We are aiming to be in a position to make an announcement early in the new year.⁴

However, on 11 January 2010 the MOD suggested that an Initial Gate decision would in fact be several months away:

as soon as we have gone through all the various technical options—one or two have arisen recently and we have to examine them seriously and profoundly—we will come to a decision about the right technical solution for the design of the successor class submarine. We will then go through what we call "initial gate" and we will make an announcement to the House at that time, and that is a matter of a few months away.⁵

As part of those technical options was reportedly a French proposal for the creation of a joint UK-French nuclear deterrent as part of proposals for greater procurement collaboration between the two countries in light of the current economic climate.⁶ While a number of

² Each Trident II D5 missile is capable of carrying 12 warheads, therefore making the Vanguard-class technically capable of carrying 192 warheads per vessel. Under limits imposed by the 1998 Strategic Defence Review, however, each submarine carries a maximum of 48 warheads while on patrol.

³ HC Deb 8 July 2009, c791W

⁴ HC Deb 16 December 2009, c1218W

⁵ HC Deb 11 January 2010, c405

⁶ See "France seeks UK collaboration", *Jane's Defence Weekly*, 24 February 2010

analysts suggested that those proposals would involve the sharing of nuclear patrols in order to maintain a continuous-at-sea deterrent, others speculated that France was looking to promote the sale of its newly developed M51 submarine-launched ballistic missile as an alternative to the Trident strategic weapons system.⁷ The pooling of nuclear sovereignty envisaged in those proposals was, however, widely reported as politically unacceptable to the UK. As an article in *Jane's Defence Weekly* in February 2010 noted:

The option of collaboration with France in the field of strategic nuclear deterrence seems politically unpalatable to the UK, given its long-standing close relationship with the US government and its instinctive foreign policy inclination towards co-operation with Washington.

In addition, the integration of French ICBMs into a future UK deterrent would face formidable technological and programming obstacles, not least because the UK has committed to working with the US on a Common Missile Compartment for the successor to its current Vanguard-class submarines.

It seems highly unlikely that either the US or France would be content for highly sensitive nuclear deterrent technology to be made available to the other party as a result of development of a mutually capable UK system. French sources acknowledge that its missile could only feasibly be part of a new UK deterrent system if France is involved in development of a suitable submarine from the outset.⁸

A delay in the submission of the Initial Gate business case was also linked by many analysts at the time to the broader political debate on multilateral disarmament and in particular where the UK's nuclear deterrent may fit in with any disarmament commitments that were agreed by the nuclear weapon states at the NPT review conference in May 2010. This is examined in greater detail in Library Research Paper RP 10/42, [Progress Towards Nuclear Disarmament](#), June 2010.

Subsequently an article in *Jane's Navy International* in April 2010 suggested that the Initial Gate review had been re-scheduled for July 2010.⁹ However, following the election of a new Government in May 2010 and the commitment by the Coalition to hold a value for money review on Trident (see below), Initial Gate is not now expected until the end of the year.¹⁰

Whether the delay of the Initial Gate will now impact on the tight timeframe for introducing the new capability and retaining a continuous at sea deterrence, is open to question. In its November 2008 report on the Trident successor programme, the National Audit Office stated that in order to meet a challenging timetable "the Initial Gate decision to enter the Assessment phase and place a full design contract for the submarine must be taken by September 2009".¹¹ The NAO report went on to state that:

During 2008 the concept phase slipped by six weeks. However, the timetable has been rearranged and the Department is confident that the concept phase can still be

⁷ "France seeks UK collaboration", *Jane's Defence Weekly*, 24 February 2010

⁸ Ibid

⁹ "Deterrent decisions: US and UK wait on next steps for SSBN replacements", *Jane's Navy International*, 22 April 2010

¹⁰ HC Deb 22 July 2010, c485W

¹¹ National Audit Office, *The United Kingdom's Future Nuclear Deterrent Capability*, HC 1115, Session 2007-08, p.12

delivered on time. While this may be possible any further delays will put significant pressure on the concept phase timetable.¹²

The NAO report subsequently concluded that “There is currently little scope for incorporating time contingency on the overall programme to deal with slippage...”¹³. A copy of the NAO report is available online at:

http://www.nao.org.uk/publications/0708/nuclear_deterrent_capability.aspx

The MOD has subsequently indicated, on several occasions, that due to the challenging timescale for delivering this programme, the design and construction phases of the programme will overlap. In justifying this approach the MOD has stated:

Overlapping design and production phases is not something which is unique to the future submarine programme – it is a characteristic of most complex engineering programmes in defence or elsewhere. Whilst non-overlapping programmes reduce certain risks by requiring that designs are fully mature before manufacture commences, longer timescales also increase the risk of obsolescence. Modern engineering design and manufacture tools and programme management methods enable the risk of overlapping project phases to be effectively managed.¹⁴

2.2 Coalition Government’s Value for Money Review

Prior to the May 2010 general election, each of the main political parties committed to undertake a strategic defence review should they take office, including a wholesale examination of future defence procurement programmes. However, both the Conservatives and Labour announced the intention to exclude the Trident replacement programme from that assessment; a decision which the Liberal Democrats called “illogical” and “a complete mockery of the whole [defence review] exercise”.¹⁵ Instead the Liberal Democrats called for an immediate review of the programme and an examination of alternatives such as the possibility of equipping the new Astute-class submarines with nuclear-armed cruise missiles or the retention of a stockpile of fissile material that could be turned into a nuclear missile capability within six to 24 months (i.e. the retention of a ‘virtual arsenal’).¹⁶

Under the Conservative/Liberal Democrat coalition agreement, Lib Dem opposition to the like-for-like replacement of Trident has, however, been dropped, although the new Government announced that the programme would be scrutinised for value for money, within the framework of the Strategic Defence and Security Review and that the Liberal Democrats could continue to make the case for alternatives.¹⁷

That review is intended to be a thorough assessment of not only the costs of the programme, but also the timetable (including the costs and risks of further extending the Vanguard-class beyond the currently planned five-year life extension); the number missiles, missile tubes and warheads that will be deployed; infrastructure and other support costs; and the industrial

¹² National Audit Office, *The United Kingdom’s Future Nuclear Deterrent Capability*, HC 1115, Session 2007-08, p.18

¹³ *ibid*

¹⁴ *Treasury Minutes on the Fourth to the Sixth, the Eighth to the Eleventh and the Thirteenth to the Sixteenth Reports from the Committee of Public Accounts 2008-2009*, Cm 7622, May 2009

¹⁵ “Liberal Democrats call for immediate review of UK Trident policy”, *The Guardian*, 2 April 2010

¹⁶ These potential options were set out in greater detail in a Lib Dem policy document published in April 2010 entitled, [Policy Options for the Future of the United Kingdom’s Nuclear Weapons](#). The option of either a nuclear-armed Astute or the establishment of a virtual arsenal are also examined in Library Research Paper RP06/53, [The Future of the British Nuclear Deterrent](#), 3 November 2006

¹⁷ “David Cameron’s coalition government sets to work”, *BBC News Online*, 12 May 2010

supply chain.¹⁸ However, the Government has also made clear that alternatives to a submarine-based system would not be considered as part of the review.¹⁹ Importantly, the study will also examine the UK's strategic posture, including the feasibility of procuring a three or four-boat class of submarine in order to maintain continuous-at-sea-deterrence.

A suggested cut in the size of the UK's deterrent fleet from four to three submarines was first proposed by the Labour Government in the 2006 White Paper and then reiterated in September 2009 as part of the political discussion on global nuclear disarmament. The case for a three-boat solution rests on the increased availability of the new deterrent as a result of a full-life reactor core, which would eliminate the need for time consuming refuelling overhauls. Yet, a number of analysts have questioned whether the UK could retain a continuous-at-sea-deterrent posture with only three boats without imposing severe pressure on the fleet. In evidence to the Defence Select Committee enquiry on the Trident White Paper in 2007 witnesses from RUSI argued that:

Four boats provide sufficient redundancy in the system for something as critical as the national nuclear deterrent, should something unforeseen occur to one of the submarines. Improvements in submarine technologies, build and maintenance may help improve submarine availability, but a reduction to three submarines may not deliver proportionate cost savings while increasing the level of risk.²⁰

The collision of HMS *Vanguard* and a French nuclear submarine while submerged in the Atlantic in 2009 has been pointed too as one such unforeseen circumstance. As Dr Lee Willett of RUSI has noted "the collision demonstrated that the unforeseen – the unthinkable even – can occur, and it is that need to put additional margin into the operating cycle that drives a four-boat force".²¹ Jeremy Stocker has also acknowledged that while moving to three boats "would generate a modest cost-saving and also provide a further disarmament gesture" he also cautioned that "there must be some operational risk and a danger of undermining the whole credibility of the deterrent by repeated pruning at the margins".²²

The extent of the cost savings that would be achieved from procuring a three boat solution have also been questioned after a number of analysts suggested that the gains would be relatively small.²³ However, given the current economic climate and the pressure on the MOD to make substantial cost savings several commentators, including Professor Malcolm Chalmers have called on the government to reassess its position on this matter (see below).

The value for money study was expected to be complete at the end of July and its findings then presented to the National Security Council over the summer. In an interview on the Andrew Marr show on 18 July 2010, the Defence Secretary had expressed his hope that the outcome of the review could be made publicly available. He stated:

The wider review into the costs of Trident, I hope will be able to be made available as soon as we can do that because I think it's important that the public can see that we've been properly scrutinising the costs of something that we promised as part of our election manifesto.

¹⁸ HC Deb 5 July 2010, c3

¹⁹ HC Deb 5 July 2010, c7-8

²⁰ Defence Select Committee, *The Future of the UK's Strategic Nuclear Deterrent: The White Paper*, HC 225-II, Session 2006-07

²¹ "Deterrence at a discount?", *Jane's Defence Weekly*, 22 December 2009

²² *ibid*

²³ See for example, "France offers to join forces with UK's nuclear submarine fleet", *The Guardian*, 19 March 2010

It remains unclear, however, whether the review's conclusions and recommendations will be published independently of the SDSR. In answer to a Parliamentary Question on 22 July, Liam Fox outlined that "the Council's conclusions will inform the Strategic Defence and Security Review (SDSR) and the Comprehensive Spending Review, which will be published in the autumn".²⁴

In May 2010 the Foreign Secretary, William Hague, also announced that the UK's declaratory policy, i.e. the UK's position on no first use, would be re-examined as part of the SDSR.²⁵

3 Spending on Trident Replacement

In the 2006 White Paper the potential outright procurement costs (in 2006-07) prices for the replacement of the Trident system and its associated infrastructure were estimated to be in the region of £15-20bn (£11-14bn for a class of four submarines, £2-3bn for support infrastructure and £2-3bn for the replacement of the warhead should that prove necessary). The years of maximum expenditure are expected to be principally 2012-2027. In addition, in-service costs for the deterrent between 2020 and 2050, including the cost of maintaining the AWE infrastructure, are expected to be broadly the same as at present i.e. 5-6% of the defence budget. The White Paper also noted:

It is not possible to be sure what the size of the defence budget will be over the timescales involved but the procurement costs are likely on average to be the equivalent of around 3% of the current defence budget over the main period of expenditure.

The investment required to maintain our deterrent will not come at the expense of the conventional capabilities our armed forces need.²⁶

In addition to these acquisition and in-service costs, the MOD also estimated that there would be some "preparatory and enabling" costs associated with extending the existing deterrent and developing future systems. Those costs have been estimated at £2bn in 2006-07 prices and include elements of the Nuclear Warhead Capability Sustainment programme, the Vanguard Life Optimisation Programme which will be required to extend the life of the current submarine fleet, and the Trident II D5 life extension programme at a cost of £250m.

Thus far the MOD's Investment Approvals Board has approved a budget for the concept phase work of £309.5m, £130.5m of which was earmarked for work on the platform and £179m for the propulsion plant. The breakdown of those costs between 2006-07 and 2009-10 was set out in the NAO's 2008 report into the replacement of Trident:²⁷

²⁴ HC Deb 22 July 2010, c485W

²⁵ HC Deb 26 May 2010, c181-182

²⁶ Ministry of Defence, *The Future of the United Kingdom's Nuclear Deterrent: Fact sheet 1 Maintaining the UK's Nuclear Deterrent*, Cm 6994, December 2006

²⁷ National Audit Office, *The United Kingdom's Future Nuclear Deterrent Capability*, HC 1115, Session 2007-08

BOX 5

Approved and actual expenditure to date for the concept phase

£ million	2006-07	2007-08	2008-09	2009-10	Total
Platform					
Approval	7.3	26.6	57.6	39.0	130.5
Expenditure	7.3	16.0	16.4 ¹	-	-
Propulsion Plant					
Approval	9.7	24.6	80.3	64.4	179.0
Expenditure	9.7	22.9	10.0 ¹	-	-

NOTE

¹ Sums accrued up to the end of June 2008.

As an estimate of spending on the concept phase up to the end of September 2009, the MOD revealed in answer to a Parliamentary Question in October 2009 that:

Since the beginning of April 2007 to the end of September 2009 some £320 million has been spent. The Initial Gate decision marks the end of the Concept Phase. The final spend on reaching Initial Gate cannot be calculated until after that point is reached. Until Initial Gate decisions are made it is too early to say what the likely expenditure will be for the period between that time and the Main Gate decision point, which is when the principal contracts with industry will be signed.²⁸

In its 2008 report the National Audit Office identified a number of areas of uncertainty with respect to the costs of the programme, including the as of yet unidentified impact on the project of defence inflation and VAT. The NAO report also highlighted exchange rates between the US dollar and sterling as a potential problem given the plan to source a range of components from the United States; along with fluctuations in the cost of materials.²⁹

In its response to the subsequent Public Accounts Committee report on Trident,³⁰ the Government made the following comments:

- The department is on course to have a robust (and independently assured) cost model to support Initial Gate in Autumn 2009 [...] In accordance with the Department's approvals process, the Initial Gate business case will state how VAT, inflation and contingency will be handled [...] the actual tax treatment cannot be determined until nearer the time the contracts are placed and the precise manner in which we will procure the programme elements has been determined [...]

Uncertainty and risk will be incorporated into cost estimates in the usual way. The Department will, via the Future Deterrent Management Board, maintain oversight of costs across the programme and take action where required to control costs, for example by making design trade-offs where necessary.

²⁸ HC Deb 29 October 2009, c502W

²⁹ National Audit Office, *The United Kingdom's Future Nuclear Deterrent Capability*, HC 1115, Session 2007-08

³⁰ Public Accounts Committee, *The United Kingdom's future Nuclear deterrent capability*, HC 250, Session 2008-09

- The Department has committed to providing an annual cost report to Parliament, which will contain a cost comparison between the programme and the initial estimates contained in the White Paper [...] The first report will be presented to Parliament by the end of the year [2009].

That first report has yet to be published due to the delay in the Initial Gate approvals process and the ongoing value for money review. In July 2010 the Government did however reiterate its commitment to publishing a report on the progress of the programme shortly after Initial Gate.³¹

3.1 Funding the Capital Costs of Trident – Treasury v. MOD

In the last few weeks disagreement between the MOD and the Treasury over the funding for the capital costs of the Trident successor programme has been widely reported. The debate has centred around the Secretary of State for Defence's argument that the capital costs of procuring the nuclear deterrent have in the past been borne by the Treasury; a position that the Treasury has refuted. In an interview on the Andrew Marr Show on 18 July 2010, Liam Fox stated:

there's always been an understanding that the budget for the nuclear deterrent came from outside the defence budget, the core defence budget. Running costs for the deterrent have always come from inside the defence budget, although the capital costs were outside.³²

Initial Procurement of Trident

In July 1980 the then Defence Secretary Francis Pym made a statement to the House on the replacement of the UK's Polaris strategic nuclear deterrent system with Trident. In that statement he confirmed that the capital cost of procuring Trident would be taken out of the existing defence budget, in line with convention. He commented:

We estimate the capital cost of a four-boat force, at today's prices, as up to £5 billion, spread over 15 years. We expect rather over half of the expenditure to fall in the 1980s. We intend to accommodate this within the defence budget in the normal way, alongside our other major force improvements. We remain determined to uphold and, where necessary, strengthen our all-round defence capability, and that applies to our conventional forces no less than to our nuclear forces...

Regarding the high cost, in the basic sense it is a very large sum of money indeed, but we have to look at it also in the context of what we are trying to achieve with our allies in securing peace. We have between us managed to achieve this in Europe for 35 years, and our strategic deterrent has uniquely made more than a contribution to it.

Of course there will be an effect on other weapons systems, but that is true of any weapons system. For instance, even the Tornado system—more expensive than the Polaris successor system that I have just announced—has its effect on other weapons systems. They all interact. But the provision of the strategic deterrent has always been part of normal defence budgeting. It is a weapons system, like any other weapons system – ships, tanks, or whatever it may be. Within the defence budget this can and will be accommodated in the same way as Polaris was accommodated 10 to 20 years ago...

³¹ HC Deb 12 July 2010, c447W

³² http://news.bbc.co.uk/1/hi/programmes/andrew_marr_show/8832224.stm

Overall this expensive weapons system will take between 3 per cent. and 4 per cent. over the 15-year period, but at its peak years it will be about 5 per cent. of the whole defence budget and 8 per cent. of the equipment part of the budget. It is necessary to get these figures into perspective...

The deterrent exists not to be used. Without it, we would have no retaliatory capability. There would be no ultimate recourse, and the pattern of deterrence would not be complete. That is the awful truth. It is uncomfortable to live with it, and it is expensive. However, it is not as expensive as a war. The deterrent plays a vital part in the pattern of our defences, and thus prevents such a thing from happening.³³

2007 Comprehensive Spending Review

The 2006 White Paper confirmed that “decisions on the level of our investments in nuclear and conventional capability will be taken in the Comprehensive Spending Review, the results of which will be announced next year”. The 2007 CSR subsequently set out:

The 2007 Comprehensive Spending Review builds on this investment and grows planned defence expenditure by a further 1.5% a year over the CSR07 period, rising to a total budget of £36.9 billion by 2010-11 - demonstrating the Government's strong commitment to defence at a time of acute operational intensity.

The settlement allows the MOD to proceed with the two new aircraft carriers [...] make provision for the maintenance of the nuclear deterrent As set out at the time of the Trident White Paper, provision for this will not be at the expense of the conventional capability our Armed Forces need. Investment in conventional capability will continue to grow over this period, as it has done since 2000; and provide for continued investment in accommodation for Service personnel.³⁴

When questioned on this issue by the Defence Select Committee in November 2007, the then MOD Permanent under Secretary of State, Bill Jeffrey, stated:

Q37 Mr Jenkin: Are you able to specify a budget line for Trident replacement over the next three years and can you tell us how much is going to be spent?

Mr Jeffrey: As the White Paper said it is provided separately within the defence budget. The figures in the existing baseline, as I recall, are of the order of £200 million, £300 million, £400 million in the three years of the spending review period.

Mr Woolley: It is about a billion over the course of the CSR period.

Q38 Mr Jenkin: Does that actually come out of the 1.5% overall increase?

Mr Jeffrey: It does, yes.

Q39 Mr Jenkin: So there is another item that we should really deduct from the overall increase because the Government pledged that this was going to be funded separately or was additional money that was going to be funded for this. We cannot double-count the additional money, can we?

³³ HC Deb 15 July 1980, c1236- 1251

³⁴ Ministry of Defence Press Release, *2007 Pre-Budget Report and Comprehensive Spending Review*, 9 October 2007

Mr Jeffrey: You certainly cannot but on the other hand what the Government said was that it would not be at the expense of conventional military capability.³⁵

He went on to clarify:

Q42 Mr Hamilton: The minister said, when the nuclear deterrent was agreed upon in the House of Commons, that it would not affect the defence budget in any way. You have just said that it will affect the defence budget; did I understand that correctly?

Mr Jeffrey: What I said was that the undertaking in the White Paper about the cost being provided additionally and not impacting on conventional capability has been met, but obviously once the money has been provided it takes its place within the defence budget. I do not think I am saying anything different from what was said in the White Paper or from what the minister said.³⁶

At issue, therefore, is the question of whether this increase to the defence budget in the 2007 CSR can be regarded as a long term commitment by the Treasury to fund the capital costs of the Trident successor programme outside of the core defence budget, or not?

In a *Daily Telegraph* blog in July 2010, former Political Secretary to Tony Blair, John McTernan, argued:

Apparently the idea that the Ministry of Defence pays for Trident – a defence capability – has come as a shock to some in the MOD... except they did [know that]. It's no breach of the Official Secrets Act to reveal that during my brief time in MOD it was clear what the implications of the Comprehensive Spending review actually were. There was no special budget to pay for the upgrading of Trident.³⁷

Indeed, the Chancellor, George Osborne has consistently argued that the full costs of replacing Trident must come from the defence budget. At the end of July he unequivocally stated that "Trident costs, I have made it absolutely clear, are part of the defence budget. All budgets have pressure. I don't think there's anything particularly unique about the Ministry of Defence".³⁸ An article in *The Guardian* also quoted one official as commenting that "the costs of trident have always come out of the MOD budget. We know what Liam is up to. But does he expect that the department of culture will pay for Trident?".³⁹

4 Parliamentary Scrutiny of Initial Gate

Since the vote on Trident in the House in March 2007 many commentators have been calling for an Initial Gate decision to be subject to Parliamentary scrutiny; while others have gone a step further and argued that the Initial Gate decision should be subject to a vote in the House of Commons.

4.1 A Parliamentary Vote?

In both the *Government Response to the Defence Select Committee report on the Trident White Paper* in May 2007 (HC 551, Session 2006-07) and during the debate in the House on

³⁵ Defence Select Committee, *Ministry of Defence Annual Report and Accounts 2006-07*, HC 61, Session 2007-08

³⁶ *ibid*

³⁷ "Are Ministry of Defence sources having a laugh about Trident?", *Daily Telegraph Blog*, 17 July 2010

³⁸ "Cabinet clash on Trident", *The Financial Times*, 30 July 2010

³⁹ "George Osborne: Trident costs will be met by defence budget", *The Guardian*, 30 July 2010

14 March 2007, the then Government indicated that, although there are a number of decisions to be taken in the future, the appropriate form of scrutiny at such times would be determined by any future Government and Parliament. As such, the Government at the time neither committed itself to, nor ruled out, the possibility of a future vote on this issue.

During the debate on 14 March 2007, the then Foreign Secretary, Margaret Beckett, commented:

Some Members have sought assurances on whether this is only a provisional decision, dependent on further decisions down the line. Today's decision does not mean that we are committing ourselves irreversibly to maintaining a nuclear deterrent for the next 50 years, no matter what others do and no matter what happens in the rest of the world. That would be absurd, unnecessary and, indeed, incompatible with the nuclear proliferation treaty. Nevertheless, the strategic case for maintaining the deterrent has been made, and has been laid out perhaps more fully than ever before. It is for the House to decide whether or not it supports that decision of principle. We must make a clear decision that confirms to the British people and the rest of the world that we are not abandoning our deterrent.

Of course, if there were a fundamental change for the better in the strategic environment—in particular, massive significant progress on non-proliferation and disarmament—it would obviously be right for future Governments to look at the issue again, and inevitably they would. As I have said, further decisions will in any case be needed on the precise design of the submarines, on whether we need four or three, on whether to renew or replace the warhead, and on whether to participate in any American programme to develop a successor to the D5 missile. It will fall to future Governments and Parliaments to discuss the most appropriate form of scrutiny for those decisions. As I have said, this Government will ensure that there are regular reports to Parliament as the programme proceeds, and we will give the Select Committee our full co-operation as it maintains its regular scrutiny of these issues.⁴⁰

Given the nature of the MOD procurement process and the commercial confidentiality that is associated with the award of procurement contracts it is debatable as to whether there would be any vote on the exact choice of system. In the early 1980s when decisions were being taken on the current nuclear deterrent there was no subsequent vote in the House (following the initial vote on 3 March 1981)⁴¹ on the placing of contracts for the specific platform chosen. Following a major change of policy in 1982 when the Government announced its intention to procure a different variant of the Trident system,⁴² there was, however, a debate and subsequent vote in the House.⁴³

What both the then Prime Minister, Tony Blair, and the then Secretary of State for Defence, Des Browne, did suggest was the possibility of Parliament re-visiting this issue around the placing of main contracts (Main Gate) which is expected to occur within the 2012-2014 timeframe. Mr Blair commented:

However, let me try to explain why I think we have still got to take this decision today. It is absolutely right that this Parliament cannot bind the decisions of a future Parliament and it is always open to us to come back and look at these issues. He is right to suggest that when we get to the gateway stage—between 2012 and 2014—when we let the main contracts for design and construction, it will always be open to Parliament

⁴⁰ HC Deb 14 March 2007, c309-310

⁴¹ Division No.89, 3 March 1981

⁴² The decision was taken to procure the Trident II D5 instead of the Trident I C4 missile.

⁴³ HC Deb 29 March 1982, c21 onwards.

to take a decision. However, I believe that the reason why we have to take the decision today is that if we do not start the process now, we will not be in the position in 2012 or 2014 to continue with the nuclear deterrent should we wish to do so.

The real dilemma is that we decided rightly or wrongly—but I think rightly—that we should seek parliamentary approval even for the design and concept stage. When we came to the previous Trident nuclear submarine, it was only at a later stage that parliamentary approval was sought. That was much criticised at the time, so we decided that we should seek parliamentary approval at the very beginning of this process. Of course, it is a statement of fact that the gateway takes place at a later stage and in a later Parliament but if we want to spend at least the more limited sum of money now on the concept and design stage, we have to take a decision now.⁴⁴

The Secretary of State also stated:

Our position was set out earlier today by my right hon. Friend the Prime Minister when he said, “It is absolutely right that this Parliament cannot bind the decisions of a future Parliament and it is always open to us to come back and look at these issues...when we get to the gateway stage—between 2012 and 2014—when we let the main contracts...it will always be open to Parliament to take a decision.” This happened when the previous generation of submarines was built, and it would be surprising if it did not happen again. However, the precise details of how future Parliaments should approach this issue is something that they must decide.

As the Prime Minister went on to say, the fundamental point is that we need to take a decision now to start the process, and we have deliberately chosen to bring this decision to Parliament at the right time at the start rather than proceeding in secret and then presenting it later as a foregone conclusion. The hon. Member for North Devon is absolutely right when he says that we are asking the House not just to keep our options open but to take the big decision—the decision in principle.⁴⁵

In December 2008 the then Secretary of State for Defence, John Hutton, reiterated:

Mr. Hutton [*holding answer 10 December 2008*]: As we have said before, it is our expectation that decisions will be taken on the Initial Gate for the programme to develop a new class of submarine to replace the current Vanguard class in autumn 2009. It is not normal for Parliament to be involved in Initial Gate decisions for procurement projects. Main Gate for this programme is still several years away. As we have also said before, we propose to update Parliament on progress after Initial Gate.⁴⁶

However, there are a number of organisations that have continued to argue that there should be further votes in Parliament at the key stages along the acquisition cycle, and primarily at Initial Gate. On its website CND commented:

In July 2007, [then] Defence Secretary Des Browne, stated that a report on the progress of the new submarines would be made after the 'Initial Gate' point of the project (end of the 'concept phase') in 2009. We are working to ensure that there will be a proper public and parliamentary debate and vote, at this 'Initial Gate' stage of the process.⁴⁷

⁴⁴ HC Deb 14 March 2007, c284

⁴⁵ HC Deb 14 March 2007, c397

⁴⁶ HC Deb 10 December 2008, c341-2W

⁴⁷ <http://www.cnduk.org/index.php/campaigns/trident/no-to-trident.html>

Dr Nick Ritchie of the Department of Peace Studies at the University of Bradford also published a paper in December 2007 which argued that the government had only sought approval for the initial concept phase work of the programme and that further votes should also therefore be held. A copy of his paper is available at:

<http://www.brad.ac.uk/acad/bdrc/nuclear/trident/briefing1.html>

In its June 2009 report on *Global Security: Non-Proliferation* the Foreign Affairs Select Committee argued:

In its response to this report, the Government should update us on the progress of the timetable for renewal of the trident submarines. We recommend that the Government should not take any decision at the Initial Gate stage until Parliament has had the chance to scrutinise the matter in a debate.⁴⁸

That report went on to state:

We further recommend that the Government should specify whether there are circumstances under which the UK would be prepared to suspend the Trident renewal programme.⁴⁹

The IPPR's Commission on National Security headed by Lord Ashdown and Lord Robertson, also recommended in its final report in June 2009 that "before any further decision of substance is taken on this matter, Parliament must have a further opportunity to vote".⁵⁰

In its response to the Foreign Affairs Select Committee report, published in August 2009, the Government reiterated:

Initial Gate is about evaluating the relative technical and engineering merits of potential submarine designs and selecting one broad submarine design to allow for detailed design work to be carried out. Because of the technical rather than policy nature of the decisions required at Initial Gate, Parliament does not get involved in the Department's procurement process at this stage, although we do propose to update Parliament on progress after Initial Gate. The main investment decision point for this programme, and the point at which we would issue the main construction contracts to industry, will not be reached until around 2024.⁵¹

That position has also been emphasised by the new Secretary of State for Defence, Dr Liam Fox. In answer to a parliamentary Question in July 2010 he stated:

We are currently planning for Initial gate decision towards the end of 2010, following the consideration by the Investment Approvals Board in the autumn. It is not normal for Parliament to be involved in Initial Gate decisions for procurement projects. I do, however, propose to update Parliament on progress after the Initial Gate decision through the publication of a report.⁵²

It will also be for the new government to determine whether parliamentary scrutiny of the programme going forward, including at Main Gate, will include further debate and votes in the

⁴⁸ Foreign Affairs Select Committee, *Global Security: Non-Proliferation*, HC 222, Session 2008-09

⁴⁹ *ibid*

⁵⁰ IPPR Commission on National Security in the 21st Century, *Shared Responsibilities: A National Security Strategy for the UK*, 30 June 2009

⁵¹ Foreign Affairs Committee, *Global Security: Non-Proliferation, Response of the Secretary of State for Foreign and Commonwealth Affairs*, Cm 7692, session 2008-09

⁵² HC Deb 12 July 2010, c447W

House. In July 2010 the MOD confirmed that “Main gate is not expected until around 2014. A decision on how best to consult will be made nearer the time”.⁵³

5 Debate on Renewal

Three and a half years after the initial vote in the House of Commons, the debate on renewal of the UK’s strategic nuclear deterrent has continued apace. The current trend towards multilateral disarmament aside, that debate has focused primarily on the political and economic feasibility of the nuclear deterrent when the security environment facing the UK has radically changed since the Cold War and the UK defence budget currently faces a shortfall of between £6bn and £36bn.⁵⁴ Critics have long argued that the funds required for a Trident replacement would be better spent on improving the UK’s conventional forces and gaining new capabilities for counter-terrorist operations; while its advocates have argued that the price is comparatively small when compared with the strategic risks involved in renouncing the UK nuclear deterrent. The exclusion of the Trident replacement programme from the SDSR at a time of economic austerity has prompted particular criticism.

In a letter to *The Times* in January 2009,⁵⁵ and again in April 2010, a number of retired senior military officers, including the former Chief of the Defence Staff, Field Marshal Lord Bramall, suggested that the replacement of Trident would be a waste of money in the current strategic climate and that those funds would be much better spent funding the UK’s conventional forces. That April 2010 letter stated:

It is to be welcomed that all the leading political parties are committed to conducting a comprehensive strategic defence review after the election. This clearly must follow a detailed evaluation of the threats that this country faces today and in the future.

However, it is of deep concern that the question of the Trident replacement programme is at present excluded from this process. With an estimated lifetime cost of more than £80 billion, replacing Trident will be one of the most expensive weapons programmes this country has seen. Going ahead will clearly have long-term consequences for the military and the defence equipment budget that need to be carefully examined.

Given the present economic climate, in which the defence budget faces the prospect of worrying cuts, and that we have already an estimated hole in the defence equipment budget of some £35 billion, it is crucial that a review is fully costed and looks critically at all significant planned defence spending [...]

Should the review determine that there is still a need for a nuclear deterrent, a number of options may be more affordable than a like-for-like replacement of the Trident system, which has been described as a “Rolls-Royce” solution. The state of the public finances requires each of these options to be carefully evaluated, alongside like-for-like replacement and disarmament.⁵⁶

Hugh Beach, writing in the February 2009 edition of *RUSI Journal*, also argued that the Government’s commitment to maintain the nuclear deterrent without impacting on the conventional needs of the armed forces is “over the longer term... clearly undeliverable”. He

⁵³ HC Deb 26 July 2010, c621W

⁵⁴ National Audit Office, *Major Projects Report 2009*, HC 85-I, Session 2009-2010

⁵⁵ “UK does not need a nuclear deterrent: Letters to the Editor”, *The Times*, 16 January 2009

⁵⁶ http://www.timesonline.co.uk/tol/comment/columnists/guest_contributors/article7103196.ece

went on to note that “in no other area of military provision is the justification of a general insurance against the unforeseen accepted”.⁵⁷

Dr Nick Ritchie of the University of Bradford has also suggested in a series of reports published over the last few years, that in light of the current economic climate the potential for reducing the costs should be a major motivation for the Government to consider, at the very least, pursuing other options that would involve reducing both the size and operational status of the UK nuclear deterrent as opposed to either replacement on a like-for-like basis or complete unilateral disarmament. In his latest report, *Continuity/Change: Rethinking Options for Trident Replacement* he noted:

British security (and the exchequer) does not require a ‘Rolls Royce’ nuclear system. If the coalition government continues to insist that terminating the Trident replacement process and relinquishing Britain’s nuclear weapons capability is strategically and politically out of bounds then at the very least it should seriously explore some of [the] options for reducing the size and readiness of the future Trident system and demonstrate genuine international leadership and a ‘disarmament laboratory’ ethic by stepping back from continuous alert, further reducing the nuclear arsenal and reducing costs in the process.⁵⁸

The potential options that he examines in that report include a ‘Trident lite’ replacement programme that adheres to the concept of minimum deterrence; a ‘reduced readiness’ downsized programme that ends CASD; a flexible, dual-use ‘hybrid’ submarine programme with both conventional and nuclear capabilities that also ends CASD and a nuclear armed cruise missile capability aboard either a current or new attack submarine.⁵⁹

Malcolm Chalmers, writing in the *RUSI Journal* in April 2009 also suggested that moving away from a continuous-at-sea-deterrence status could be one option for easing the financial strain of this programme. He argued:

On current cost estimates, peak levels of spending on new missile submarines will reach around £1 billion per annum from 2015, and remain at that level for around a decade. During a period when the total defence budget is likely to be under greatly increased pressure, significant additional resources will have to be diverted into this single project.

Were the commitment to CASD to be loosened, however, the Vanguard replacement timescale might be significantly lengthened. The MOD is already planning some life extension work on the new submarines to allow the first new boat to enter service in 2024. Further studies are under way to assess the implications of extending this deadline further [...] a delay of a further five or so years before production begins could be very welcome in the MOD’s current straitened financial circumstances.⁶⁰

He also went on to note that “such a delay could have the further advantage of reducing the extent of the mismatch between the submarine replacement programmes of the UK and the US”.⁶¹ Chalmers also expressed this opinion in his July 2010 report for RUSI on CASD, in which he argued that “given the severe costs that trident renewal could require, there is now a strong case for a re-examination of whether alternatives to current CASD policy could yield significant financial savings while continuing to meet this agreed objective. The fiscal

⁵⁷ Hugh Beach, “Trident: white elephant or black hole?”, *RUSI Journal*, February 2009

⁵⁸ Dr Nick Ritchie, *Continuity/Change: Rethinking Options for Trident Replacement*, June 2010

⁵⁹ Ibid, p.94

⁶⁰ Malcolm Chalmers, “Britain’s new nuclear debate”, *RUSI Journal*, April 2009

situation facing the Ministry of Defence is significantly worse than was assumed in 2006, when current renewal plans were drawn up... and awareness of the opportunity costs of Trident renewal has grown as key production decisions draw nearer".⁶²

Ian Kearns of RUSI also believes that "the more momentum President Obama generates on disarmament, the more out of place the immediate decision to renew trident will look" and goes to on recommend "exploring options for delaying the UK decision for another five years in order to save money and signal UK support for Obama's agenda".⁶³

Amid the more recent funding row, the Campaign for Nuclear Disarmament has argued that "if trident really were essential to national security it would top the MOD's spending priorities – the fact they'd rather not pay for it at all suggests that even they understand that the £100bn cost of trident and its replacement would be a complete waste of national resources".⁶⁴

Yet, advocates of maintaining the UK's strategic nuclear deterrent have continued to argue that the UK must retain the ultimate security guarantee in an increasingly uncertain world. As former Secretary of State for Defence, John Hutton, stated in July 2009 "we should never forget that the first business of Government is national security. Everything else is secondary".⁶⁵

This is a longstanding view that has been consistently held by Dr Julian Lewis MP. Writing in the February 2009 edition of *RUSI Journal*, Dr Lewis argued:

Future military threats and conflicts will be no more predictable than those which engulfed us throughout the twentieth century. This is the overriding justification for preserving armed forces in peacetime as a national insurance policy. No-one knows which enemies might confront us during the next thirty to fifty years, but it is highly probable that at least some of them will be armed with weapons of mass destruction [...]

Strategic nuclear deterrence is largely irrelevant to the current counter-insurgency campaigns which are stretching the British army to the limit; we are fighting wars on a peacetime defence budget. As a result some senior Army officers are suggesting that we must choose between fighting what is called *the war* of the present, rather than insuring against the possibility of a *war* of a different kind in the indefinite future.

This choice is unacceptable, and the underlying message – that the era of high intensity state-on-state warfare is gone for good – is a dangerous fallacy. Every right thinking individual hopes that such warfare will never return; but to rely on this in the face of past experience would be foolhardy in the extreme.⁶⁶

Sash Tusa, writing in *The Times* in June 2009 has also commented:

Trident and its successor are as much about national power and Britain's position in the world as about military effect. The five permanent members of the UN Security Council achieved their positions by being the victors of the Second World War. But now they retain those seats only thanks to their possession of credible nuclear

⁶¹ ibid

⁶² Malcolm Chalmers, "Continuous At-Sea Deterrence: Costs and Alternatives", *RUSI Briefing Note*, July 2010

⁶³ "US-Russia nuclear pact means UK can delay Trident renewal, analysts say", *The Times*, 9 April 2010

⁶⁴ CND press release, *trident spending wrecks defence priorities says CND*, 30 July 2010

⁶⁵ John Hutton, "As long as others have nuclear weapons that can be aimed at us, we must never give up the ultimate deterrent", *The Mail on Sunday*, 5 July 2009

⁶⁶ Julian Lewis, "Soldiers against the bomb?", *RUSI Journal*, February 2009

deterrents [...] Anyone who does not think the seat valuable should be open enough intellectually to assess the diplomatic value of a Security Council veto [...] Cancel trident's replacement and we join the second rank of European countries, on a par with Italy or Spain economically and militarily 9to say nothing of abandoning our obligations under the Non-proliferation treaty to protect European countries that lack such weapons) [...]

The next government, of whatever hue, will find out all too quickly that there are no easy cuts left in defence. Any decision is likely to have implications not just for jobs but also for Britain's industrial and military capability. Cut the trident replacement, and Britain's entire submarine manufacturing capability would be almost fatally undermined, making any future submarine programme unaffordable.

This is not an industry like civil nuclear power, where we might be able to look to an overseas supplier to fill a gap caused by a short-sighted costs-driven decision to delay or abandon a programme.⁶⁷

A report published in June 2009 by the Institute for Public Policy Research's *Commission on National Security in the 21st Century*, which was chaired by Lord Ashdown and former NATO Secretary General, Lord Robertson,⁶⁸ also supported the view that a minimum credible deterrent should be maintained, but raised the question of whether other, more cost effective, options should be considered. The Commission also called for the issue to be considered within the wider context of a Strategic Review of Security. That report stated:

Trident

The Commission believes firmly in the need to pursue a world free of nuclear weapons and in the need for the UK to play an active role in bringing that about. In the meantime, and in relation to Trident, the Commission recommends:

Recommendation 17: The future of Britain's independent nuclear deterrent should be considered as an integral part of the recommended Strategic Review of Security. This should consider:

- Whether, as the Commission believes is the case, a minimum UK deterrent is still needed
- The best and most cost-effective way to provide it, including consideration of whether we should replace the Trident system, as is currently planned, seek to extend the life of the current system further or decide that some other system for providing Britain's deterrent in a nuclear armed world would be better suited to the strategic circumstances in which we then find ourselves
- The opportunity costs of maintaining our deterrent, in all its possible forms, for other sectors of the UK defence and security budget. This must take into account the costs that would be involved in decommissioning Trident and its facilities.

Recommendation 18: In order to maintain the option of refreshing the current system as part of the Strategic Review of Security, the UK should continue with the crucial ongoing preparatory work on the concept, design and assessment phases of the Trident refresh.

Recommendation 19: To provide maximum additional flexibility in our position, the UK should also now recommence detailed exploratory work on the costs and viability of a

⁶⁷ "Without trident, the second division awaits", *The Times*, 22 June 2009

⁶⁸ A list of the other members of the Commission is available at: <http://www.ippr.org/security/?id=3106>

further run-on, beyond 2024, of the existing Vanguard submarine hulls, so that the Strategic Review of Security, should it conclude that Trident is the appropriate way to go, can also consider this option if desired.⁶⁹

John Hutton, in his piece for *The Mail on Sunday*, contested the view that a minimum deterrent could be maintained in a more cost effective manner, however. He stated:

Britain must retain the ability if necessary to defend itself by all of the military means at its disposal. Weakness only attracts greater dangers. It does not make threats go away. They are there whether we like it or not, whether we choose to acknowledge it or thrust our heads in the sand.

To defend ourselves against these very different threats we need firstly to understand that our independent nuclear deterrent remains an absolutely essential pillar on which everything else depends [...] So it is right that we should now be taking the necessary steps to replace our current Vanguard submarines [...] No other delivery system – such as bombers or land-based missiles – could ever provide an equivalent level of deterrence. Our nuclear submarines are undetectable and cannot be taken out by a pre-emptive strike. That is why they provide the best form of nuclear deterrence available to us.

It is why we should not listen to those who suggest that there is a better, cheaper form of deterrence available to us. There isn't.⁷⁰

He went on to comment:

It is nonsense to say that we cannot afford trident any longer. If belts have to be tightened – and they do – this should not be done at the expense of national security. Replacing trident will cost the equivalent of 0.1 per cent of our GDP over the lifetime of the programme. It is a price well worth paying [...]

Who can predict what the world will look like in 50 years' time, because that is what you have to be able to do if you advocate unilateral nuclear disarmament [...] predicting the future nature of armed conflict is a perilous business. No one has a good track record. That is why the best possible policy for Britain is 'safety first'.⁷¹

As a compromise position, the idea of extending the life of the current trident system while a more fundamental review of security could be undertaken has also been supported by the Chair of the Pugwash Group. In response to the retired generals' letter to *The Times* in January 2009 John Finney argued:

The £20 billion allocated to Trident renewal may not be a large sum in terms of overall defence expenditure, but there has never been a time when financial considerations were more crucial, and reports on better civilian, as well as military, projects for which the money could be better spent appear regularly in the media.

Moreover, in technical arguments presented to the Defence Select Committee at the time of the 2007 parliamentary debate on Trident renewal, acknowledged world experts convincingly demonstrated that the lifetime of the current system could – with further financial benefit- be extended [...]

⁶⁹ IPPR Commission on National Security in the 21st Century, *Shared Responsibilities: A National Security Strategy for the UK*, 30 June 2009

⁷⁰ John Hutton, "As long as others have nuclear weapons that can be aimed at us, we must never give up the ultimate deterrent", *The Mail on Sunday*, 5 July 2009

⁷¹ *ibid*

Were we to postpone a decision on renewal, we would not only save money, but also create a space in which to assess fundamentally how the UK can best respond to the threats of today's world rather than of yesterday's.⁷²

Whether the extension of the current system would achieve significant cost savings is, however, open to question. Major upgrade programmes have historically proven to be costly and subject to serious delays due to the complexity of the platforms involved. The Nimrod MR4A upgrade programme for example is currently £789 million over budget and a little over seven and a half years late.⁷³ Indeed the procurement record of the MOD has been frequently cited by organisations such as Greenpeace as justification for estimating the potential costs of the Trident programme at the higher end of the scale (£100bn over the lifetime of the programme).⁷⁴

Analysts such as Dr Lee Willett at RUSI have also questioned whether cost savings could be achieved by pursuing alternative options such as the development of a new submarine-launched nuclear-armed cruise missile. At the heart of his argument is the fact that this would be an entirely new system for the UK requiring significant new technological developments, and one which neither the US nor France are developing. As such the UK would be required to solely fund both the up-front development costs of a new system, including a nuclear warhead capable of being deployed on a cruise missile, and the extensive infrastructure that would be required to support it. He concludes that the UK “would be faced with developing and paying for a new cruise missile, nuclear warhead and supporting infrastructure, alongside addressing a raft of safety legislation which would be borne out of the development of a new system. The costs of doing so would be astronomical”.⁷⁵

For further articles, commentary and debate see Library briefing SN/IA/4207, [The Future of the British Nuclear Deterrent: Suggested Reading](#).

⁷² “Sabre rattling and a British nuclear deterrent: letters to the Editor”, *The Times*, 20 January 2009

⁷³ National Audit Office, *Major Projects Report 2008*, HC64-II, Session 2008-09

⁷⁴ See [In the Firing Line](#), Greenpeace, September 2009

⁷⁵ Dr Lee Willett, “Debating the Deterrent: Why the Cruise Missile Option Does not add Up”, *RUSI Briefing*, July 2010