

## Memorandum from Greenpeace

The White Paper CM 6994 on the future of the United Kingdom's nuclear deterrent lacks factual backing in a number of key areas such as those of the nature of any perceived future threat, cost, and the design of submarine.

Prime Minister Tony Blair states in the foreword to the White Paper:

*"Those who question this decision need to explain why disarmament by the UK would help our security. They would need to prove that such a gesture would change the minds of hardliners and extremists in countries which are developing these nuclear capabilities. They would need to show that terrorists would be less likely to conspire against us with hostile governments because we had given up our nuclear weapons. They would need to argue that the UK would be safer by giving up the deterrent and that our capacity to act would not be constrained by others."*

Greenpeace UK would argue that before taking this important decision the opposite is the case and that the onus is on the UK government to show how possession of nuclear weapons has in the past or would in the future protect us against terrorists, hardliners and extremists, would halt countries such as North Korea from continuing to develop their nuclear capability and how such countries are likely to threaten or have any reason to attack the United Kingdom.

Has the possession of nuclear weapons by Britain and the United States halted the Taliban in Afghanistan or insurgents in Iraq? This White Paper fails to convincingly provide any justification for the continued need for Britain to possess nuclear weapons and fails to outline any realistic threats to the United Kingdom in the near or distant future.

Furthermore, the justification used throughout the White Paper that there are still close to thirty thousand nuclear weapons in the hands of an elite few is an insufficient reason for deciding to retain a nuclear arsenal. If all countries took that approach, as North Korea has, we would end up in a nuclear free for all.

Given all the uncertainties that remain in the Government's White Paper Cm 6994, the clear lack of any justification for Britain retaining any form of nuclear weapons system, and our legal

obligation under the nuclear Non-Proliferation Treaty, Greenpeace UK believe that the Government's pursuit of a replacement system to Trident is ill-considered, unnecessary and illegal.

## **Section 2: The Policy Context**

1. Government's over-arching policy on nuclear weapons remains unchanged from that outlined in the 1998 Strategic Defence Review yet much has changed in the world in those nine years.

2. Much was made in the White Paper that the actual physical number of UK nuclear warheads has declined and that our stockpile accounts for "*less than 1% of the global inventory*" and that it is "*the smallest*". Whilst physical numbers have changed, the actual capability of Britain's nuclear weapons stockpile has increased. Trident has increased greatly the range and accuracy of the UK nuclear stockpile, whilst the potential arsenal carried by a Vanguard submarine on patrol remains unchanged despite any wider stockpile changes proposed in the White Paper.

3. No account has been taken in the White Paper of the international implications on the international nuclear non-proliferation and disarmament arena. Please see separately Appendices A-C for Greenpeace's position regarding the relationship of the White Paper to international and humanitarian law.

4. One of the principal objectives of the nuclear Non-Proliferation Treaty (NPT) as stated in its preamble is that its signatories declared "*their intention to achieve at the earliest possible date the cessation of the nuclear arms race and to undertake effective measures in the direction of nuclear disarmament*".

and that:

*"Desiring to further the easing of international tension and the strengthening of trust between States in order to facilitate the cessation of the manufacture of nuclear weapons, the liquidation of all their existing stockpiles, and the elimination from national arsenals of nuclear weapons and the means of their delivery pursuant to a Treaty on general and complete disarmament under strict and effective international control."*

5. This is reflected also in Article VI of the NPT which states

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

Yet, how can one say that the UK is abiding by the NPT when a matter of months before its signatories meet to discuss its future at the NPT Preparatory Committee (PrepCom) meeting at Geneva in May 2007, it has decided to retain an operational nuclear arsenal until at least 2040?

6. In 2000 NPT member States met to review progress on achieving the aims and objectives of the treaty. Britain along with the other four nuclear weapon States agreed to implement 13 *"practical steps for the systematic and progressive effort to implement Article VI"*. These commitments included further efforts to reduce their nuclear arsenals unilaterally, concrete measures to further reduce operational status of their nuclear arsenals, increased transparency and a diminishing role for nuclear weapons.

7. Yet when NPT member States met in 2005 they failed to reach agreement on any way forward on the 13 steps to bring about a world free of nuclear weapons. One of the fundamental issues at that and every other year they have met is the failure by the five recognised nuclear weapons States to take any meaningful steps to disarm.

8. The intentions in the White Paper will be used as yet another example by the more than 180 countries who are NPT member States and do not have nuclear weapons of gross hypocrisy and a clear lack of commitment to Article VI of the Treaty and the 13 practical steps agreed to in 2000.

9. Admitting, as they do in para 7-4, that the UK will be working with the U.S. on a new nuclear warhead for their replacement system will certainly ensure that the UK government's repeated assurance in the White Paper that they are *"committed to working towards a safer world in which there is no requirement for nuclear weapons"* will fall on deaf ears.

10. Whilst all the measures outlined in Box 2.1 are laudable the reality is that all international fora concerned with nuclear proliferation issues are stagnated. For example, the Conference on Disarmament, the only UN body with a mandate to negotiate universal treaties on these important issues, has done no

significant work since it completed the Comprehensive Test Ban Treaty in 1996.

11. In the policy area of "counter-proliferation" the UK government is also applying a double standard. The White Paper refers to the 40 members of the Nuclear Suppliers Group (NSG) having the "*technical ability and means to initiate a viable nuclear weapons programme*" yet they have done nothing to stop, and have in fact encouraged, the continued reprocessing of spent nuclear fuel and the return of an essential ingredient of nuclear weapons, namely plutonium, to countries such as Japan.

12. Also through the NSG the UK government has sat silent watching the United States (a member of the NPT) and India (a possessor of nuclear weapons and not a member of the NPT) cement a nuclear cooperation agreement that will inevitably free up nuclear material and technology in India so they can concentrate on developing further their nuclear arsenal outside of international control.

13. If the UK government were serious about its 'counter-proliferation' obligations it would stop allowing the selling of nuclear technology, reprocessing of spent nuclear fuel and decide to use its diplomatic and political influence to halt such matters as the nuclear deal between the U.S. and India.

### **Section 3: Nuclear Deterrence in the 21<sup>st</sup> Century**

1. The 2003 Defence White Paper, *Delivering Security in a Changing World* confirmed and extended a new direction for British military thinking, with the focus on expeditionary operations, effects-based warfare and 'Network Enabled Capability' (NEC), aimed at countering threats from terrorism and asymmetric warfare.

2. As then Defence Secretary Hoon said in the foreword:

*"Our focus is now on delivering flexible forces able to configure to generate the right capability in a less predictable and more complex operational environment..."*

3. Greenpeace UK would argue that there is nothing "flexible"

about nuclear weapons and that their continued possession does not fit with the new British military thinking outlined in the 2003 Defence White Paper.

4. Some significant changes from the Strategic Defence Review of 1998 and the updated 'New Chapter' following the 11 September 2001 attacks were notable. In particular British military thinking now included a goal of being able to sustain three concurrent small-medium operations instead of two, of which one would be a long-term peace support operation. Geographically, while the SDR expected that the key areas of operations outside Europe would be the Mediterranean and Gulf regions, the White Paper envisaged operations further afield, especially South Asia and Sub-Saharan Africa.

5. The 2003 White Paper envisaged that most operations would be in coalitions, although Britain would be prepared to take the lead role in those in which the US is not involved. However, large scale operations - against state adversaries - would only be undertaken as part of a US-led coalition. Thus, interoperability with US forces, both in terms of technology, doctrine and operational tempo, are given a high level of importance.

6. As a result, the 2003 White Paper called for new equipment and organisation to fill this new role including new giant aircraft carriers and a Joint Combat Aircraft to enable Britain to project power from sea to land. Other programmes include the Future Rapid Effects System (FRES) family of medium-weight land vehicles designed to increase the capability for rapid interventions.

7. The capability to defend against a major conventional threat to the UK or its allies was no longer considered as necessary in the 2003 White Paper although "*the continuing risk of proliferation of nuclear weapons*" was briefly noted.

8. Now, three years later, the Government are stating, without any factual back-up, that we need to have a new nuclear weapons system because "*we cannot rule out, over the 2020-2050 timescale, a major shift in the international security situation which puts us under threat*" of nuclear attack.

9. Greenpeace UK would agree that as long as there are nuclear materials and technology available and that nuclear weapons are regarded as being essential to the security of a few nations, there will remain a risk of further proliferation of nuclear weapons.

10. Another rationale used to justify possession of a nuclear arsenal is increased pressure on natural resources such as energy and water creating international instability and risk of interstate conflict. They also include in the list increases in population, global economic development and climate change as possible factors in creating instability.

11. We fail to see how nuclear weapons will halt the impacts of climate change, ensure adequate birth control for the world's poor or make any nation economically richer and not poorer. We also fail to see how a British nuclear weapons system has even been a factor in stopping atrocities such as that occurring in Darfur.

12. The rationales outlined in the White Paper that because of the *"continued existence of large nuclear arsenals, the possibility of further proliferation of nuclear weapons in combination with the risk of increased international instability and tension"* Britain still needs nuclear weapons are, we would argue, exactly the rationales for why Britain should do its utmost to eliminate them.

13. Needed now are not new rationales for possessing nuclear weapons but increased diplomatic effort and initiatives to rid the world of nuclear weapons, materials and technology. A greater concentration of efforts by the UK government on other military tasks such as humanitarian assistance and response and peacekeeping would demonstrate a deeper commitment to the goals of peace and security.

#### **Section 4: Ensuring Effective Deterrence**

1. The White Paper states that:

*"If they are to have the required deterrent effect, our nuclear forces need to continue to be credible against the range of risks and threats described in Section 3."*

2. As argued above, Greenpeace UK reiterate that British nuclear weapons are not a credible weapons system to combat risks and threats such as interstate conflict or the impacts of climate change. The idea that at some point in the future a Dr Strangelove figure will appear, develop a secret nuclear arsenal and threaten the UK with it is somewhat unrealistic.

3. Greenpeace is concerned that the Government continues to view the facility of an adjustable yield on the warhead as a benefit, as stated in para 4.9. Being able to adjust the yield downwards

lowers the nuclear threshold, making nuclear conflict, and the use of nuclear weapons against non-nuclear states, more likely. Perception of the nuclear arsenal as therefore more 'useable' only serves to destabilise global security, provoke proliferation, and heighten the possibility of nuclear use. Greenpeace would welcome the Committee seeking a further elucidation of the Government's position on this shadowy area of strategy and warhead development.

## **Section 5: Deterrent Options, Solutions and Costs**

1. The White Paper states that the procurement costs will "*need to be refined as the concept and assessment phases is taken forward with industry*" and that more "*accurate cost estimates*" will only be available when they come to place a contract for the new submarines in five to seven years time. The Government then states rather boldly that their initial estimate of the cost is £15 - 20 billion at today's prices.

2. Greenpeace UK suggests that the Defence Select Committee revisit their own inquiries and those of the National Audit Office on the vast cost overruns of the Trident system to remind themselves how unlikely it is that this will be the actual cost and that in fact, as history shows, it is likely to be much higher.

3. A recent example was the two new aircraft carriers which are not as technically challenging as building an SSBN. Initial Gate[i] approval for the carriers was given in December 1998, with Main Gate approval originally intended for 2003-04, but the Assessment Phase was extended in 2004[ii]. The project has now moved from the Assessment to the Demonstration phase, but with no new date set for full Main Gate approval, which will be required before the Manufacture phase can begin[iii]. Originally, the Assessment Phase was forecast to cost £118m, but this figure has increased to £300m[iv]. The intended in-service dates for the two carriers were originally 2012 and 2015. The House of Commons Defence Select Committee, in December 2005, suggested that the planned in-service date may now be delayed, and described the lack of a target for Main Gate as "extraordinary".[v]

4. As the White Paper itself admits in Section 6:

*"Designing and building new SSBNs and integrating them with other elements of the overall system, will be a significant technical challenge for the Ministry of Defence and for industry."*

and that SSBNs are

*"one of the most complex and technically demanding systems in existence."*

5. Greenpeace UK reiterates that such a high risk strategy with unknown future financial outlay would be ill-advised even if there were proven to be a real need.

6. The White Paper also fails to adequately take into account and underestimates the associated costs of supporting infrastructure required such as those of warhead construction and maintenance that can also prove to be substantial if new warheads and facilities are required.

7. On top of the acquisition costs there are also the operational and maintenance costs, which the White Paper estimates at up to 6% of the current Defence budget, which would mean £1.8 billion per year.[\[vii\]](#) This is a considerable increase on previous figures for Trident itself, and is driven by increased spending at the Atomic Weapons Establishment at Aldermaston (AWE), which the White Paper expects to continue and indeed increase further.

8. However, this does not cover all costs associated with maintaining and operating the UK's SSBN fleet. A 1998 estimate by Scottish CND, based on Parliamentary answers, also included allowances for the cost of conventional forces assigned to the defence of Trident (£303m), plus other costs (£60m, including an allowance for major refits over the 30-year life span), giving £440m per year in 2006 prices[\[viii\]](#). In line with the general tendency to increasing costs, it is likely that this figure would be somewhat higher for a Trident replacement, but the figure also gave the high-end estimate for the cost of the conventional forces assigned to the defence of Trident. On this basis, our preliminary research indicates a total figure of around £2.24bn per year simply for operational and maintenance costs. Over 22 years, this gives a total cost, for procurement and operations, of **£75.5bn**, which is very close to estimates produced by other recent studies. Greenpeace is presently preparing a full briefing on the costs of Trident Replacement, which it will provide to the Committee at the earliest opportunity.

9. We also find it incredulous that the Government is expecting to take a vote on a future replacement system for Trident in March of this year when the White Paper, para 5.15, clearly states that:

*"Decisions on the level of our investments in nuclear and*



*conventional capability will be taken in the Comprehensive Spending Review..."*

Surely it would be prudent to defer any decision until the outcome of the CSR is clear and thereby the UK can establish if it can afford a replacement.

## **Section 6: Industrial Aspects**

1. There are several areas here that should be of concern to the Defence Select Committee and Parliament as a whole that need further elaboration than currently contained in the White Paper.

2. Firstly, as noted above:

*"Designing and building new SSBNs and integrating them with other elements of the overall system, will be a significant technical challenge for the Ministry of Defence and for industry."*

and that SSBNs are

*"one of the most complex and technically demanding systems in existence."*

3. The White Paper also highlights the fact that there was a failure in the early design stages to be able to build the Astute class at the original estimated cost but that lessons "have been learnt". However, the White Paper also states that "more change is needed for industry to be able to deliver".

4. This is further justification as to why any decision to replace the Trident system at this juncture would be ill-advised and premature until industry can prove to the satisfaction of Parliament that they can actually meet this complex and technically demanding challenge. Particularly, given that the White Paper estimates it will take seventeen years for the first new submarine to go out on its first patrol and it will be the early 2020s when they start to retire Trident. If you follow the 25 year until retirement timeline of logic, however, this is reduced to retiring HMS Vanguard in 2019 as it went on its first patrol in 1994.

5. Whilst in Section 4 it is argued that there is a need for the UK's nuclear forces to remain "fully operationally independent"

another concern for the Committee should be that the White Paper suggests that there is no guarantee that the replacement submarines will be built in the UK. This will be "dependent on proposals from industry that provide the right capability at the right time and offer value for money".

6. Does this leave open the possibility that any replacement submarine could be built by a U.S. or South Korean shipyard? After all, the White Paper states that the MoD will buy "*some sub-system elements from overseas*". In this case, over the lifetime of the system we could find Britain's 'independent nuclear deterrent' not being able to function because of a failure of an overseas supplier to replenish components or to service the 'sub-system' that they supplied.

7. Another area of huge financial uncertainty is the final decommissioning costs of Vanguard or any replacement system. However, having already decommissioned their predecessor, Polaris, surely the White Paper should be able to provide at least a rough ball park estimate for decommissioning an SSBN?

## **Section 7: Future Decisions**

1. The White Paper states that a decision on whether a new warhead will be required or the existing one should be refurbished is "*likely to be necessary in the next Parliament*" and that a detailed review is to be undertaken with the assistance of the United States.

2. Another economic and political uncertainty is the need for a continuous supply of tritium for both the existing warhead stockpile and any future design as the tritium-producing Chapelcross reactors have been closed down since early 2004. Questions need to be asked and answered about when the UK tritium supply will run down, what alternatives there are and what the economic cost of this could be.

3. Another area of uncertainty is that in the 2002 Health and Safety Executive Nuclear Installations Inspectorate review of the Rolls Royce decommissioning strategy, the Rolls Royce Submarine Fuel Manufacturing plant in Derby was due to be closed in 2017 and the Neptune reactor design facility in 2013.[\[viii\]](#) This may have economic and political implications on any future decision and also requires clarification.

4. In May of 2006 British Nuclear Group were awarded a 36 year contract worth £230 million to store submarine spent nuclear fuel.

However, this fuel is not processed in any way and a decision will have to be taken on how to treat and store it in the long term which will certainly have cost implications that require factoring into any future decision on a replacement system.

5. What to do with existing submarine nuclear reactors stored at Devonport and Rosyth remains another question awaiting answer particularly as it is estimated that storage capacity will run out in 2020. The only site so far identified has been RNAD Coulport which is currently used to store Trident warheads. If this site were to be chosen there are issues over how the replacement system and any future submarine reactor would co-exist.

6. Given the other uncertainties outlined above with costs and industrial capabilities of building an SSBN it would be prudent to defer until everything is completed and a clearer picture is presented on a whole system before taking any decision on whether or not to proceed with a new SSBN, rather than just one part of it.

## **Recommendations**

1. Greenpeace recommends that no final decision should be taken until after a genuinely full, informed and open public debate takes place, as promised by the Government, which should include further detailed inquiries by the Defence Select Committee and initiation of inquiries by the Foreign Affairs Select Committee.

2. Until such time as this debate is concluded, Greenpeace recommends that Trident be taken off patrol, and its warheads removed to an internationally monitored storage site. Alongside the deferral of any plans to develop a new nuclear weapons system, these would serve as confidence-building measures and enable the UK to take a lead in strengthening existing disarmament treaties and provide the platform to kickstart multilateral nuclear disarmament negotiations.

*22 January 2007*

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[\[i\]](#) The "Initial Gate" approval point for a project allows the project to proceed to the Assessment Phase, which considers

different alternative procurement possibilities and comes up with a preferred option. "Main Gate" approval allows the project to move to the Demonstration and Manufacture stages.

[\[iii\]](#) Under the Smart Procurement Initiative (SPI) process, Initial gate occurs at the end of the Concept Stage, before the commencement of the Private Finance Initiative (PFI) procurement process. Main Gate is an exacting approval hurdle, between the Assessment and Demonstration Stages

[http://www.ams.mod.uk/ams/content/docs/ils/ils\\_web/ilsmgt/mg.htm](http://www.ams.mod.uk/ams/content/docs/ils/ils_web/ilsmgt/mg.htm)

[\[iiii\]](#) "Future Aircraft Carrier project moves to next phase as assembly plans are agreed", MoD

<http://www.mod.uk/DefenceInternet/DefenceNews/EquipmentAndLogistics/FutureAircraftCarrierProjectMovesToNextPhaseAsAssemblyPlansAreAgreed.htm>

[\[iv\]](#) National Audit Office, *Ministry of Defence Major Projects Report 2005*, HMSO, November 2005

[\[v\]](#) House of Commons Defence Select Committee, "Future Carrier and Joint Combat Aircraft Programmes", Second Report of Session 2005/06, HC554, December 13, 2005,

<http://www.sbac.co.uk/community/news/files/3566/Future%20Carrier%20and%20Joint%20Combat%20Aircraft%20Programmes.pdf>

[\[vi\]](#) Cm 6994, p27.

[\[vii\]](#) According to Scottish CND

<http://www.banthebomb.org/archives/magazine/nfs9921.htm>. Defence Secretary George Robertson emphasised that the figures he gave for forces committed to Trident did not represent the cost that could be attributed to Trident, as these forces had other duties as well; however, it would be hard to argue that there is zero marginal cost. Dr. Ainslie assigned the full cost of forces 'committed' to Trident, and 30% of the cost of 'contingent' forces. This figure is therefore open to debate, but is not outrageous.

[\[viii\]](#) A review by the Health and Safety Executive's Nuclear Installations Inspectorate of the strategy of Rolls-Royce Marine Power Operations Ltd for the decommissioning of its nuclear sites, 22 May 2002 <http://www.hse.gov.uk/nuclear/qgqreview/rrqqr.htm>