



British American Security
Information Council



Reading the findings of the UK Trident Alternatives Review

Paul Ingram / July 2013

This briefing anticipates the publication of the Government's Trident Alternatives Review (TAR), and provides analysis on how it should be read.

The review (TAR)

- When the UK Coalition Government came to power in May 2010 it was clear that Trident renewal was one of the areas the two parties could not agree on.
- In May 2011 the Government announced the commencement of an 18 month study led by the Cabinet Office and overseen by MoD Armed Forces Minister Nick Harvey MP (LibDem), into alternatives to the like-for-like Trident renewal project. The TAR was taken over by LibDem Cabinet Minister Danny Alexander in late 2012.
- TAR terms of reference state: "The scope of the work will be limited to the following questions:
 - Are there credible alternatives to a submarine-based deterrent?
 - Are there credible submarine-based alternatives to the current proposal, e.g. modified Astute using cruise missiles?
 - Are there alternative nuclear postures, i.e. non-CASD [Continuous At-Sea Deterrence], which could maintain credibility?" *Terms of Reference, May 2011*
- "The analysis should make an assessment of how alternatives could be delivered, the feasibility, cost and industrial implications, level of risk and credibility." *Terms of Reference, May 2011*
- While the TAR will not make definitive recommendations, it is likely to identify the leading alternative options and their consequences. It will not settle the debate, but is designed to inform opinions on whether there are indeed credible, cheaper, more flexible nuclear alternatives to a continuous-at-sea ballistic missile submarine system.
- The draft review was passed from Danny Alexander's office to the Prime Minister and Deputy Prime Minister in mid-June 2013. It is now expected that a public version will be published in mid-July before Parliamentary recess, assuming political agreement can be reached on the contents.
- The TAR is likely to be debated in Parliament later in the year. The information within the review will then inform future decisions.
- The Liberal Democrats are likely to be debating their defence policy (including Trident replacement) at their Autumn conference, and may be looking to use this issue to distinguish themselves from their Conservative partners in government, who are also the principal challengers in many of their Westminster seats. The TAR may be used as a critical source of evidence.

Limitations to the TAR

- The TAR does not include non-nuclear options to deliver strategic deterrence and defence for the UK. In view of the 2010 choice to delay the final main gate decision for replacing the submarines

until after the General Election, and the opportunity afforded to consider the broader dynamics of Britain's nuclear weapon policy, BASIC launched the Trident Commission in February 2011. The Commission has a much broader mandate than the TAR and is now likely to report in the Autumn.

- Unlike the Commission, the TAR does not cover questions around the changing nature of the security environment faced by Britain a quarter of a century after the end of the Cold War, and the nature of its Alliance relationships. There will be no assessment of the effectiveness of nuclear deterrence in 21st century.
- Nor does the TAR consider the costs and impacts on economic security of replacing and maintaining a new generation of nuclear weapons, delivery systems and platforms. These are particularly acute at a time of austerity.
- Nor does the TAR consider the international politics surrounding nuclear non-proliferation, and the opportunities Britain has to influence other states and achieve progress under the non-proliferation regime. Of course it is highly unlikely that a British decision to abandon the deployment of nuclear weapons would be the determining factor in any other state's own nuclear decisions. But UK disarmament or further reductions would certainly affect the sense of what is possible within the nuclear non-proliferation regime. The nuclear weapon states have come under harsh criticism for many years for their continued attachment to nuclear weapons, which threatens the cohesion of the whole non-proliferation regime.
- It remains to be seen how the paper will identify criteria for a 'credible minimum deterrent'. If, like the 2006 Defence White Paper, these are rooted in a retrogressive Cold War approach, focused on the possibility that Britain could face an overwhelming resurgent Russia alone or a nuclear 'bolt-from-the-blue', this will prejudice the outcomes in favour of the current system.
- Flexibility is a crucial criterion to consider, one that dominates in non-nuclear defence planning where equipment capabilities are increasingly multi-use. If the UK is not yet ready to make a decision to abandon its nuclear weapons, there remain options that could increase flexibility and delay the need to replace. Any investments in nuclear weapon systems need to have sufficient

flexibility to move further down the nuclear ladder as the security and diplomatic environment allows. A full continuous-at-sea ballistic missile submarine system offers little flexibility; so Britain may find itself at sea when it comes to offering anything substantial at any future multilateral disarmament negotiation.

- However, it would be a mistake to see full continuous-at-sea deterrence (CASD) as the only option. In his RUSI paper on *Continuous at Sea Deterrence*, Malcolm Chalmers outlined some of the advantages arising from a CASD-capable submarine force, and a dual-capable one. The forthcoming Trident Commission report will go into further options.
- Further, if Britain were ever to consider a 'virtual deterrent' (dismantling a deployed arsenal but maintaining the capability to reconstitute it were the situation to deteriorate), basing it upon a dedicated ballistic missile submarine system would be an impractical, expensive choice. Rather, such an option would depend upon smaller dual-capable platforms designed for active military service but capable of deploying nuclear weapons should the need arise.

Likely TAR findings

- Media reports suggest that the TAR will be used by the Conservatives to highlight the drawbacks of alternative platform and delivery systems, and the cost-effectiveness of the current plans, whilst the Liberal Democrats will find sufficient evidence to suggest a change. But what change? Originally focused on the possibility of a cheaper attack-class submarine-based alternative (explicitly mentioned in the terms of reference) it seems that the Liberal Democrats may have come to accept that these alternatives will not be sufficiently credible, will have negative unintended consequences, or would not save enough money. This last crucial element is largely because of the transitional costs, reduced collaboration with the United States and the criteria used to measure credibility. Analysts outside of government will be assessing those criteria in particular when the TAR is published.
- Instead, the Liberal Democrats may end up picking up on the less definitive TAR conclusions around the need for a continuous patrol of

submarines, and propose dropping CASD early. This could take the pressure off the replacement timetable (moving capital costs to later years), substantially save on annual running costs and reduce the requirement for future submarines. BASIC has been researching options along these lines in detail for the Trident Commission. For example, if there were an early decision to drop the continuous CASD requirement (and instead only require continuous patrols at times of likely threat to the UK), and the two newer Vanguard-class submarines temporarily mothballed, to be redeployed when the other two reach the end of their operational lives, this would immediately take the pressure off the replacement timetable, achieving major savings in the running costs and capital programme immediately.

Background

- Since the end of the Cold War the UK has reduced its nuclear arsenal to one system based around highly-accurate, long-range Trident submarine-launched ballistic missiles manufactured by the United States. The final 'main gate' decision on a replacement for the British submarine fleet is due in 2016.
- Trident has three components: the submarines, the warheads, and the missiles. Although each of these components has years of service left, they cannot last indefinitely.
- The four Vanguard class submarines were built at what is now BAE Systems' shipyard at Barrow-in-Furness and are based at the Clyde Naval Base at Faslane in Scotland.
- Each submarine can carry up to 16 Trident submarine-launched ballistic missiles (SLBM's) and each missile can carry up to 12 warheads, but since the 2010 Strategic Security and Defence Review, UK Government policy has been to reduce the warhead number to no more than 40 per submarine.
- One armed submarine is on patrol at any one time – this is known as continuous at sea deterrence (CASD). France operates a similar CASD regime, and the United States has several boats out at any one time.

Further Reading

Paul Ingram & Rachel Staley, 'The Great British Trident Debate: 2013 Reviews, 2014 Scottish Referendum, 2015 General Election, 2016 Main Gate Decision'

<http://www.basicint.org/blogs/2013/06/great-british-trident-debate-2013-reviews-2014-scottish-referendum-2015-general-electi>

Dr. Nick Ritchie, 'Beyond the Trident Alternatives Review'

http://www.basicint.org/sites/default/files/basic_ritchie_beyond_trident_report.pdf

Dr. Nick Ritchie, 'Replacing Trident Background Briefing for Parliamentarians'

<http://www.york.ac.uk/media/politics/documents/research/MPs.pdf>

Dr. Nick Ritchie, 'Stepping down the Nuclear Ladder: Options for Trident on a Path to Zero'

http://www.york.ac.uk/media/politics/documents/research/Trident_Options.pdf

'The foreign-policy implications of the Trident replacement debate' *International Institute for Strategic Studies (IISS)*

<http://www.iiss.org/en/events/events/archive/2013-5126/march-ea59/trident-replacement-debate-9b06>

Further briefings are available on the BASIC Trident Commission website:

<http://www.basicint.org/tridentcommission/>



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