

GR159C Trident replacement – questions for the uncommitted

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In considering the issue of replacing the UK nuclear deterrent force, currently provided by the Royal Navy submarine flotilla carrying Trident nuclear missiles onboard Vanguard class submarines there are a number of value neutral questions to address. These could be characterised into four areas - technical, industrial, military and political.

1. Technical

- Can we build the new platforms and weapons?

Commentators often start by thinking about the use of deterrent rather than the effort to create and sustain its operationally effective existence.

- What are the demographics of the population of people with nuclear skills and what capability exists to flex their use between military and civil nuclear power generation?

- Are there technological spin-outs?

The UK currently bases and most likely will continue to base its deterrent on nuclear submarines due to their stealth characteristics and the fact the RN now has sole retention of the operational skill-base to ensure the capability is available to the nation in time of need. Nuclear powered submarines incorporate technologies relevant to civil power generation. One potential example could be seen around the Astute nuclear attack submarine. Its nuclear core ('core-H' in the parlance) does not need refuelling, with the attendant costs and risks which that could entail. Could this technology have a civil spin-out in minimising nuclear waste?

2. Industrial

- Is the launch platform (most likely a Vanguard successor ballistic nuclear missile submarine or SSBN) something which can be designed and manufactured solely by UK means (i.e. companies, facilities, staff)?

Underpinning the challenges of the Astute attack submarine programme (arguably the most complex defence project ever undertaken in this country) has been the difficulties in achieving an appropriate industrial tempo, or 'drumbeat' as procurement

staff termed it. The impact has been an atrophying of skills in the industrial base, coupled with a fear that each individual submarine to be built will be the last - leading to the supply chain either inflating prices for their goods in turn causing higher unit costs or exiting the market all together. Medium to long-term transparency must be a key goal.

3. Military

- The Cold War deterrence doctrine of the strategic triad (i.e. submarines, land based and air launched nuclear missiles) was designed to maximise flexibility and guarantee deterrence to a potential aggressor. The UK today has only the one 'leg' of the triad. Sea basing, whilst regarded as being the most effective is also likely the most expensive. Over a two to three decade timeframe does submarine basing meet the cost:benefit ratio most effectively ? Are there emerging technologies which will affect its current invulnerability?

- Nuclear weapons, whilst cheap to maintain are expensive to procure. In the early stages of the Cold War atomic and nuclear weapons were a bulwark enabling European reconstruction after the Second World War - enabling people to be demobilised and return to civil life. Will nuclear weapons provide a useful hedge against a demographic shift across Europe and the underdeveloped world ?

- A further element of Cold War thinking was the concept of a spectrum of capabilities - from 'low intensity' or counter-insurgency type operations at one end to 'global thermonuclear war' at the other. The UK Ministry of Defence has to date been able to meet the challenges of the conflict spectrum which despite intense financial pressure. Can this continue?

- Can new technologies in terms of precision and firepower replicate the effect of a nuclear weapon through use of conventional explosives? Nuclear weapons as a massive 'area of effect' weapon are quite out of synch with the public demonstrations of and legal requirements for care and precision in military targeting. How does the doctrine and development community position such weapons in future? A pointer could perhaps be seen in the efforts of Iran and North Korea to bury military facilities deep underground - requiring weapons of firepower beyond the magnitude of anything the conventional domain can deliver.

Operational sovereignty. Can a UK deterrent remain genuinely independent in the face of cost and technology pressures, including the inability to carry out physical tests of the weapons because of the Nuclear Test Ban treaty?

4. Political

- The Special Relationship. Nuclear cooperation with the United States is genuinely unique in a world of sovereign, self-interested nations. The connectivity between what is undoubtedly the world's principal economic and military leader gives Britain that element of "Greece to America's Imperial Rome". From a foreign relations stand-point what would unilateral nuclear disarmament do to broader relations with the United States?

- In Europe, UK nuclear disarmament would leave France as the sole European nuclear power. If France was ever in a position where it could consider the use of nuclear weapons, would a non-nuclear Britain have more or less influence?

- Britain's place on the UN Security Council. This was originally predicated on its key role in World War II. All five permanent members are now nuclear weapons states. Would the UK retreat from ownership result in pressure to relinquish its place in favour of say, the EU or a country with a larger economy?

- The importance of resourcing defence. Since 1989 all Governments have progressively reduced the proportion of taxation spent on defence in favour of education, health and social security. However the armed forces of Britain are increasingly seen as essential to managing instability in regions of the world. What is the opportunity cost for conventional forces of investing in nuclear deterrent forces? Conversely are nuclear weapons essential given how expeditionary British forces are? In classic terms a reversal of fortunes against our armed forces would leave Britain's defences considerably weaker due to fewer platforms and less being manufactured. Will financing of the deterrent be a first step in a broader revitalisation of the armed forces?

- Ethical foreign policy. Although Bismarck once famously said, "when a nation couches its foreign policy in terms of ethics; re-arm" there is amongst western liberal democracies a primacy placed on acting appropriately.

- Existential deterrence - Is the mere existence of nuclear weapons in the UK's golf bag of military capabilities a means of deterring potential attacks?

Interpretation of international law. This is a difficult area. The Nuclear Non Proliferation Treaty is an example. The full text of an oft-quoted passage from article VI is

“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”.

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