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Trident: Why I Changed My Mind About the UK's Nuclear Weapons

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31 August 2016

Following the vote to renew the Trident nuclear programme, a former nuclear-armed submarine commander discusses why the UK needs to seriously rethink its attitude to nuclear weapons.

***Editor's Note:** Commander Forsyth's explanation as to why he has changed his view on the deterrence value of the now and future Trident weapon system was originally written for family members. It has been edited by the ORG with the full involvement and agreement of Commander Forsyth to be suitable for wider publication. Of particular interest is his alternative proposal for a smaller, 'for but not with' and more versatile submarine platform as a stepping stone to reducing the level of ready use weapons whilst preserving the ability to resurrect full CSD posture if required.*

In 1972 I became Executive Officer of HMS Repulse, one of the four Polaris A3 missile-carrying submarines based on the Clyde. Based on this experience I can say, without any sentiment or exaggeration, that the use of nuclear weapons during the Cold War would have threatened the existence of humanity.

I believed that Mutually Assured Destruction (MAD) was at the centre of the UK's deterrence policy, meaning that if the Soviets fired at us then we (as well

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as the USA and, latterly, France) would respond in such measure as to immediately annihilate several major cities in the Soviet Union.

The consequential radiation effects of any nuclear detonation would largely complete the destruction and this would almost certainly have caused a 'nuclear winter'.



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Commander Forsyth on HMS Sceptre.

MAD and the Cold War

The policy of MAD would, we were told, only have been used in retaliation to a Soviet nuclear first strike with missiles en route to Europe or the USA. We were constantly assured that under no circumstances would we fire our Polaris missiles first even if tanks were rolling across the German plain, unless the Soviets had already fired nuclear weapons at us.

As Paul Rogers notes, the UK's other **tactical** nuclear weapons could have been used against such a Soviet offensive. Yet at the time we thought that this would not necessarily start a strategic exchange. Perhaps naively, we tended to consider Polaris in isolation from the tactical battlefield and on a whole different level.

The UK's retaliatory only policy (assuring a second strike was possible) let us sleep easily at night during the years that we took 16 Polaris missiles to sea. As Nick Ritchie **explains**, each of these missiles carried two warheads with an estimated yield of 40kt. Thus, with 16 missiles per boat, just one patrolling submarine could have fired 32 40kt warheads, which would have given a

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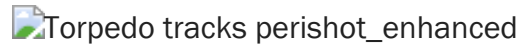
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potential explosive yield of 1.28 megatons—hence why we called what would happen if they were used Armageddon.

Understanding the power of the bomb

The US had many more submarines, aircraft and land-based missile silos. Our contribution was a gesture of togetherness against a common enemy whose declared policy was assumed to be 'world domination by any means'.



Periscope pic of torpedo tracks approaching the target.

In comparison, the atomic bomb that physically destroyed the Japanese city of Hiroshima in WWII and killed 100,000 people in the process had just a 15 kiloton yield. So when Prime Minister Theresa May [stated](#) in parliament last July that she was prepared to press the button and kill 100,000 people, we should recognise that the number of deaths she was referring to was significantly less than that which Polaris missiles were capable of inflicting—never mind the massive collateral structural and radiation casualties which would result.

Each Trident warhead has a yield of up to [100 kilotons](#), which, in terms of destructive power, is equivalent to six or seven Hiroshimas. The UK presently deploys [40 nuclear warheads](#) and not more than eight missiles on its four submarines, meaning that the destructive power on board just one of these submarines, if used at the same time against a densely populated country, would kill considerably more than 100,000 people.

Justifying nuclear use

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The ownership of this sort of power begs the question: what threat might justify the use of such destructive force? We also need to be clear under what circumstances and at what scale the Prime Minister might authorise a nuclear strike because she could be taking us all with her.

Two government statements are relevant to this discussion:

1. Then Secretary of State for Defence, Geoff Hoon, [stated](#) in 2002, prior to the invasion of Iraq, that Saddam Hussein could 'be absolutely confident that in the right conditions we would be willing to use our nuclear weapons'.
2. A government policy paper of 8th May 2015 [stated](#) that 'it will not rule in or out the first use of nuclear weapons' to 'deter and prevent nuclear blackmail and acts of aggression against our vital interests that cannot be countered by other means'. This leaves open the option for the Prime Minister to authorise Trident's use to deter an aggressor who may be threatening to use nuclear weapons or is using massive conventional forces which we do not have sufficient conventional force to counter. But, importantly, the government deliberately maintains 'some ambiguity precisely when, how and at what scale we would contemplate use of our nuclear deterrent'.

Keeping the option open of using nuclear weapons first against an adversary who you judge is threatening your 'vital interests' with non-nuclear force is quite different from MAD. This is what makes me question the whole basis of what we may or may not do with Trident. Formerly we would not have fired Polaris missiles until British cities had been totally destroyed by a megalomaniacal action by the Soviets. It would have been a futile gesture by us but the threat of doing so was considered to be a deterrent. Now it is ultimately a matter of the Prime Minister's judgement as to whether we embark on a nuclear war. This

raises the prospect of deliberately causing Armageddon as opposed to a reaction to one already started.

In which case, I would argue that we have the right seriously (a) to question whether the Government should have that power and (b) if so, to constrain the circumstances in which such power can be used. As Nick Ritchie [points out](#), the UK 'does not dispute that international humanitarian law applies to the use of nuclear weapons and has incorporated the notion of "extreme circumstances of self-defence" into its declaratory nuclear policy statements'. Yet will all future Prime Ministers follow such guidelines in practice?

The need to ask these questions, and decide if building a new generation of nuclear weapons is justified and will 'keep us safe', is particularly important given that no military case has been made for Trident's use by its supporters—other than the vague statement that we don't know what the future holds.

Reference to the prospective use of nuclear weapons is nearly always qualified by adding that they are a weapon of 'last resort'. As part of the Prime Minister's decision making process she has therefore, at the very least, to be satisfied that all other alternative avenues have been exhausted, starting with the political and economic ones, escalating up through the increasing use of conventional military power.

Rethinking what military capabilities the UK needs

When I was at sea in the 1960s and 1970s the UK invested in both the Polaris force and significant conventional armed military forces in all three services. The country was able to send a Task Force as far afield as the Falklands and, more importantly, the armed forces were strong and large enough to withstand

the quite considerable attrition—particularly in the Navy—in fighting a full-on war.

The services have gradually been whittled down to a level in which such a Task Force could not be assembled. By its own admission the Navy does not have enough ships and submarines to meet peacetime commitments—never mind war. The six Type 45 **destroyers** designed to protect the UK's two new carriers were victims of over-design and under-funding (albeit costing £1billion each) such that they are now in harbour with major operational limitations which will take some years to be rectified.

Meanwhile, the next generation of frigates have been **delayed**. When they do come they will have outdated equipment and there will still not be enough of them to give anti-submarine warfare protection to the carriers—unless they forego other roles of which there are many. The **Army** and **Air Force** also have their own tales of woe—soldiers die for lack of body armour and the correct vehicles because the military budget has to cope with the costs of Trident.

Why is this? To some extent you can blame senior officers for lack of management ability and vision when challenged by the need to meet major commitments with a constantly reducing budget. They should perhaps have been stronger and said we are not well placed to play the role assigned in the Iraq war, be peace keepers afterwards and also embark on a new war in Afghanistan. The 'can do' spirit has been counter-productive.

However, the other budgetary factor is that the cost of building four Successor submarines alone is now set to **cost** at least £31 billion. You can buy quite a lot of aircraft carriers, frigates and hunter killer submarines for that.

The consequential reality is that we have very little conventional capability before the use of Trident becomes our last resort—a very dangerous situation for world peace. So who are we likely to need to use our last resort against having said that rogue states and dirty bombers are not likely targets? The answer is no one at the moment. Yes, Russia is acting aggressively, waving their nuclear weapons stick, but Russia has no grand plan for world domination. I must therefore conclude that the Royal Navy is being exploited to operate a political status symbol with no military value at the cost of other important capabilities.

There is no threat to the UK that justifies our nuclear force

During the Cold War the UK's nuclear-armed submarines were at 15 minutes notice to fire. Since 1994 however, following an agreement with Russia, the UK's nuclear weapons have been de-targeted—although this situation could be quickly reversed. The Trident submarines are lurking on standby 'just in case', so there is time to target and arm them if the situation escalates. Saying North Korea is a threat to the UK is not credible. Pyongyang may become a threat to US interests, but even that is unlikely and the US is more than capable of responding.

Some may argue that now is not the time to lay down our nuclear arms because it might further destabilise our position in Europe and be seen as a further 'weakness' post-Brexit. But what does this mean? That the Russians will see an opportunity and seize it? I believe they know, despite the Prime Minister's words, that we would not fire our nuclear weapons except in retaliation to a major nuclear first strike by them—which they are unlikely to launch. But I also believe it is possible that Putin could take advantage of our regular Force's weakness, for example, through giving covert military support

and overt political support to 'popular' pro-Moscow uprisings in Russia's near abroad. The calculation here would be that NATO would likely find it difficult to find an effective response to such manoeuvres.

As for a developing intercontinental threat from elsewhere in the future, if it's not on the drawing board now (and it's not) then we have time to consider our options. Designing a submarine today to go to sea in 17 years' time to counter a future undefined notional threat is really fighting yesterday's war with yesterday's technology. By making that decision now it becomes harder to change our posture as more and more money is poured into the Successor programme.

Is there an alternative? Yes there is. If, despite all the above, the UK decides it needs to have a nuclear weapon system for 'insurance' reasons then a submarine platform is probably the best vehicle to carry it because it is considerably less vulnerable (I would not use the word invulnerable now) to counter-detection than cruise missiles, aircraft or land based weapon platforms. However, the problem with the current and future Trident submarines is that they are a single purpose platform, very big—consequentially comparatively slow—and really only have a self-defence capability. They contribute nothing to peacetime surveillance or war-fighting capability in any other area than firing strategic missiles and cost the earth.

We have already reduced the number of missiles per boat so why not make a further reduction to say four per boat and fit a missile section into existing Astute class hunter-killer submarine hulls?[1] This option could save money, enable a dual role and, by building five, two or even three of them could be at sea at any time in either role and be a useful enhancement to the UK's broader submarine needs.

Furthermore, if the Government wished to demonstrate its willingness to comply with the Nuclear Non-proliferation Treaty, then missiles and warheads could be placed in ready-use store. This is justifiable on the basis that there is no threat today that requires the cost of having a submarine at sea at all times employed solely on what is known as Continuous at Sea Deterrence (CASD). Apart from anything else, the maintenance of the 'invisibility' of the SSBN on patrol requires **additional support** from ships, submarines and maritime aircraft taken off other more real time operations. Should it ever begin to become necessary, a CASD posture could, of course, be re-introduced very quickly as a clear signal of the UK's determination to deter and as a further step up the nuclear ladder.

Conclusion

I believe that it is highly unlikely that the UK will ever come under nuclear attack from an enemy remotely susceptible to a threat of nuclear retaliation. I also don't think first strike nuclear attack should ever be an option for the UK—we should not duck saying that. But if, as some may argue, that now is not the time to scrap the nuclear option because there is a remote chance we need to retain a nuclear weapons capability, then there is an option which cuts the cost significantly, allows for the restoration of our three Services to something resembling useful and still maintains the nuclear deterrent as a capability to be deployed if events ever require. Yet, of course, even this option would not prevent the government of an independent Scotland from forcing the relocation of Trident south of the border at a massive extra cost.

Image of Trident missile via [Wikimedia](#).

[1] Trident submarines have 16 missile tubes and the Successor class is due to have 12. Each missile is capable of carrying 12 warheads. The 2010 Strategic Defence and Security Review, unilaterally downgraded the outload per submarine to a maximum of 8 missiles and 40 warheads. There are, therefore, redundant missile tubes in existing and planned submarines. Only 4 missiles are needed to carry 40 warheads.

Commander Forsyth joined the submarine service in 1961 (aged 22). He subsequently served in conventional and nuclear powered submarines until 1980. During his career he commanded HMS Alliance (diesel powered), was Executive Officer (2nd in command) of HMS Repulse (Starboard Crew) a nuclear powered, Polaris missile firing submarine, Commanding Officer (Teacher) of the Submarine Command Course (aka 'Perisher') and Commanded HMS Sceptre a nuclear powered Hunter Killer submarine deployed on Cold War patrols. He created the website www.whytrident.uk with the aim of providing the wider world with answers to the obvious questions not easily obtainable elsewhere.

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