

What price nuclear blackmail?

Britain has possessed a nuclear deterrent for just over 50 years and is laying plans to keep it going for the next half-century. In its formal presentation of the case for so doing the Government has said: ‘It is not possible accurately to predict the global security environment over the next 20 to 50 years. On our current analysis, we cannot rule out the risk either that a major direct nuclear threat to the UK’s vital interests will re-emerge or that new states will emerge that possess a more limited nuclear capability, but one that could pose a grave threat to our vital interests. We must not allow such states to threaten our national security, or to deter us and the international community from taking the action required to maintain regional and global security. We can only deter such threats in future through the continued possession of nuclear weapons. Conventional capabilities cannot have the same deterrent effect. We therefore see an enduring role for the UK’s nuclear forces as an essential part of our capability for deterring blackmail and acts of aggression against our vital interests by nuclear-armed opponents.’ⁱ

Resisting nuclear blackmail

The core argument for replacing Trident can therefore be simply stated. If Britain were to divest itself of this weapon and became a non-nuclear weapon state, then a state that did possess nuclear weapons and with hostile intent might ‘pose a grave threat to our vital interests’, or at least prevent us from intervening, as a ‘force for good’, as we might otherwise wish. If this happened we should have no option but to submit. Conventional capabilities would not suffice. Only possession of our own nuclear weapon can give us the freedom to confront ‘blackmail and acts of aggression against our vital interests by nuclear-armed opponents.’ Put in these stark terms the argument carries a ring of conviction. Partly for this reason it has seldom, if ever, been analyzed. The aim of this paper is to show that it is far from being the whole story.ⁱⁱ

The first and obvious point is that of the 189 states party to the Nuclear Non-Proliferation Treaty (NPT) all but five have committed themselves to non-nuclear weapon status permanently.ⁱⁱⁱ If this makes them

all potential victims of nuclear blackmail, they do not seem to be unduly constrained by this fact. Some 30 of them have the economic, industrial and scientific capacity to become nuclear weapon states if they wished, but have chosen not to. A huge majority of states has voluntarily accepted non-nuclear weapon status and seems to suffer no disadvantage from this fact. You may say that the main reason why many of these states are content with their lot is because they shelter under the American umbrella. This would certainly apply to the 25 non-nuclear members of NATO, also Japan and South Korea. But if that is good enough for them, why not for the UK - supposedly the Americans 'best friend' and most treasured ally. I come back to this in a moment.

A similar point can be made from the other side. It is not clear that any of the possessor states has derived benefit from its weapons by way of coercing a non-nuclear weapon state. America was defeated by the North Vietnamese in the 1975 and backed down in the face of casualties on many other fronts, most notably the Tehran hostage crisis (1980), Beirut (1983), and Mogadishu (1993). The Soviet Union was defeated by the Afghans. In none of these cases were their nuclear weapons any help to the possessors.

British nuclear weapons

Nor has anyone claimed a direct benefit to Britain from her possession of nuclear weapons. Specifically, it cannot be shown that Britain has been able to take any action vis-à-vis another country that she could not otherwise have undertaken, nor prevented action by any other country that she could not otherwise have prevented, by virtue of her nuclear arsenal. British nuclear weapons did not deter Argentina from attempting to annex the Falkland Islands in 1982, nor help Britain to recover them, despite the belief that a Polaris submarine was patrolling the South Atlantic.^{iv} The most that has ever been claimed is that Britain, as a nuclear weapon state, has been influential in promoting arms control measures such as the NPT and the various nuclear test ban treaties, and has generally carried more clout in such bodies as the P5 and the Security Council. It would be more true to say that the UK owes its influence to being the world's sixth largest economy and has, arguably, the most skilful and experienced diplomats.

Since possession of nuclear weapons for the past fifty years has not done Britain any demonstrable good, what does this tell us about the next fifty years? You may say 'not much', because it is impossible to predict the

political context up to the middle of the 21st century. But at least one can think about it. We need first to consider Britain's position vis-à-vis the United States. The crucial question is to what extent Britain can rely in future on the support of America in facing down any future nuclear threat. The possibility of having to confront a recidivist Russia is hinted at by the reference to re-emergence of 'a major direct nuclear threat to the UK's vital interests' and is plainly something to be borne in mind. But if the American nuclear guarantee is regarded as fully watertight, why is there any need for an independent British system?

The American nuclear guarantee?

So far as the security of the British homeland is concerned this appears to fall squarely within the North Atlantic Treaty. Article 5 says: 'The parties agree that an armed attack against one or more of them in Europe ... shall be considered an attack against them all and consequently they agree that, if such an armed attack occurs, each of them will assist the Party or Parties so attacked by taking forthwith, individually and in concert with other parties, such action as it deems necessary, including the use of armed force, to restore and maintain the integrity of the North Atlantic area.' This clearly implies that the US will provide cover to all its NATO allies against nuclear attack in any European context. It has certainly been understood in this way by all the non-nuclear European members - not least those who have recently joined from Central and Eastern Europe.

But Britain also operates as an ally of America outside Europe and not necessarily in a NATO context. Here also there is an explicit policy of relying upon American protection. The British Defence White Papers 'Delivering Security in a Changing World' (2003/4) explain: 'The most demanding expeditionary operations, involving intervention against state adversaries, can only plausibly be conducted if US forces are engaged, either leading a coalition or in NATO'.^v ... 'The full spectrum of capabilities is not required (by Britain) for large scale operations, as the most demanding operations could only conceivably be undertaken alongside the US, either as a NATO operation or a US led coalition, where we have choices as to what to contribute'.^{vi} Reference to 'the most demanding operations' implies that, where a nuclear threat is concerned, America would be in the lead and would provide the necessary cover. And because the operational nuclear force provided by US forces is many times larger than ours, what possible significant contribution could Britain make other than as a rather expensive

political signal? This is a point generally true of most of the more sophisticated military packages deployed, but most of all with the Trident system, already heavily dependent upon the Americans.

The D5 missiles used on British Trident are American. The 58 missiles to which the British have ‘purchased title’ are unspecified in the [American] stockpile, so there are no UK-designated missiles.^{vii} The stockpile is based at the Strategic Weapons Facility Atlantic at Kings Bay, Georgia.^{viii} The weapons are collected from there by British submarines, test-fired there and returned there for refurbishment as necessary. The hardware and much of the software associated with the missiles’ targeting and firing are also of American provenance.

This close cooperation with the United States on technical matters is covered by the Mutual Defence Agreement of 1958, regularly renewed. In an amendment the following year the US agreed to supply Britain with non-nuclear parts of atomic weapons systems, together with ‘special nuclear material’^{ix} required for research, development or manufacture of atomic weapons.^x This arrangement has been recently extended, by agreement between the President and the Prime Minister, for a further ten years till December 2014.^{xi} These agreements have underpinned the close and continuing link between the two countries in constructing, operating and maintaining the British strategic nuclear submarine force over the past forty years. As the AWE Annual Report for 2004 explained, co-operation with the US on nuclear weapon matters, under the 1958 Mutual Defence Agreement, now ‘covers every aspect of weapon design, development and maintenance’. So no one doubts the description of the British Trident Warhead as being an American W76 warhead ‘anglicised’ at Aldermaston. It is generally assumed that all the items of the Re-entry Vehicle outside the Nuclear Explosives Package are of American supply.^{xii}

Given this very close tie-up between Britain and America, both strategically and technically, what geo-political niche can be discerned in which Britain could be exposed to nuclear blackmail without being able to count on American cover? This, of course, is an ancient question and no such scenario has ever been described, nor have Britain’s ‘vital interests’ ever been defined. Yet such a contingency has been held in the past to be of enough weight to justify the costs of a separate British system. One could argue that the same should apply to the next half century. To this we now turn.

The British government concedes: ‘We judge that no state currently has both the intent and the capability to pose a direct nuclear threat to the United Kingdom or its vital interests’^{xiii}. But we are considering a period extending to the middle of this century. It is impossible to predict the political context so far ahead. For example the focus of American interest may have shifted decisively towards the Pacific Rim; the Russians and Chinese may have become hegemonial powers in their own right and the number of nuclear weapons states may have doubled or halved. The government claims that: ‘we cannot rule out the risk that such a (direct nuclear) threat will re-emerge over future decades’^{xiv}. This is the key argument made by the British Government in defence of Trident replacement as summarized in the first paragraph of this paper.

One can distinguish two possible situations. The first is where the America, while possibly sympathetic to the Britain’s position, is not prepared to commit to her nuclear protection - bearing in mind that this could place American forces or homeland at risk of retaliation - the adversary being, by definition, a nuclear power.^{xv} The second is where America is actively opposed to the position taken by Britain. We take the latter first.

Under the Mutual Defence Agreement co-operation by either party is contingent on their determining that such action ‘will promote and will not constitute an unreasonable risk to its defence and security’. The message is clear that such co-operation could be withdrawn at any time if the UK embarked on a course of action that the US regarded as inimical to its interests. The agreement referred to the fact that the two countries were participating in an international arrangement for their mutual defence and security (i.e. NATO) and at Nassau the British Prime Minister accordingly agreed that the strategic missiles to be provided would be used for the nuclear defence of the alliance. He did however insist on an exception ‘where Her Majesty’s government may decide that supreme national interests are at stake.’^{xvi} The question arises whether British Trident could be used without the United States consent and could be targeted independently of US assistance. When this question was put in the House of Lords in 1995 the Government spokesman replied ‘Trident is an independent nuclear deterrent. That means exactly that, I can go no further’^{xvii}. The Delphic nature of this answer was obviously deliberate.

The issue needs to be discussed at two levels. If the US were to determine that co-operation on British Trident was no longer promoting American defence and security, or was posing an unreasonable risk to it, then all technical assistance could be withdrawn. Denied help in maintaining, testing and upgrading the missiles, the fire control system and key components of the warhead, and with no re-supply of life restricted items for the latter, the whole system would start to become unworkable and probably unsafe within a matter of a year or less. Therefore, if Britain were to use or threaten to use Trident in circumstances of which the US actively disapproved this could sign the death warrant for British Trident. She could only do so once.

For as long as the system remained functional there is the question of actually firing a missile in circumstances where the Americans were actively opposed. The submarine could no doubt be sailed to an area where the sea-bed had been accurately surveyed by the British. The order to fire could be conveyed and authenticated without using an American satellite. The missile would then presumably work, although the accuracy might be impaired if gravitational and weather information, normally supplied by the Americans, was not available. If the British Prime Minister, deciding that 'supreme national interests were at stake', were to order Trident to fire then it would do so. Short of attacking the submarine^{xviii}, or the Prime Minister, there is nothing the Americans could do to stop it.

But how likely is it that a Prime Minister would act in defiance of the United States. The last time that Britain took military action in the teeth of opposition from America was at Suez in November 1956. America checkmated this action within days by means of financial, economic and political pressure.^{xix} This contingency is hardly worth contemplating seriously.

It remains to consider the situation where America, while not actively opposing British action, is unwilling to support it. Until 1942 Britain had had to face the existential threat from Hitler on its own. Our best friend and ally, Roosevelt uttered kind words and financial support, but kept his nation firmly out of the struggle, even when it looked as if we might go under, until finally forced in by the Japanese. Perhaps it is unlikely that this would ever

happen again but it might. It will be helpful to consider some past interactions between nuclear and non-nuclear weapon states.

Who knuckles under to nuclear blackmail ?

In June 1948 the Soviet Union blockaded the surface routes into West Berlin, no doubt expecting to achieve control of the whole city, despite the facts that it was defended by substantial American, French and British garrisons and that America then possessed nuclear weapons while the Soviet Union did not. The American Chiefs of Staff proposed to send an armoured column from West Germany to force open the autobahn, but this plan was vetoed by President Truman as too risky. Instead the allies decided to re-supply West Berlin by means of a massive airlift. The Russians harassed the transport aircraft, buzzing them, shining searchlights and firing flak nearby but stopped short of shooting them down. The airlift was successful, the blockade failed and was lifted in May 1949, and the Soviets were humiliated. One reason why the Soviet Union did not attack the allied transport fleet may have been that they feared a nuclear response from the Americans. A more likely explanation is that, like the Americans, they shied away from any overt military action which could have started a third World War. Remember that this was only three years after the 'Great Patriotic War of 1941-45 had ended, in which more than 25 million Russian people had died.

In July 1950, at the very beginning of the Korean War, President Truman ordered 10 nuclear configured B-29s to the Pacific, and warned China that the US would take 'whatever steps are necessary' to stop Chinese intervention, saying that the use of nuclear weapons 'had been under active consideration.' The Chinese at that time were several years short of acquiring nuclear weapons. By late November the Americans had made substantial incursions into North Korea. The Chinese then struck along the Chongchon River, completely overran several South Korean divisions and attacked the flank of the remaining UN forces. The ensuing defeat of the U.S. Eighth Army resulted in the longest retreat of any American military unit in history. This was a major defeat for the Americans, and plainly their attempt at nuclear blackmail had not dissuaded the Chinese from inflicting it.

In October 1973, on the feast of Yom Kippur, the Egyptians attacked Israel across the Suez Canal and the Syrians attacked on the Golan. The

Israelis, taken by surprise, placed their nuclear armed F-4 aircraft and *Jericho* intermediate-range missiles on high alert. But Prime Minister Golda Meir vetoed their use and their main effect was to persuade the USA to begin a re-supply if the Israeli Defence Forces with conventional weapons and munitions. Egypt and Syria must have known for at least half-a-dozen years that Israel possessed its own nuclear weapons^{xx} but were not deterred.

Saddam Hussein was not deterred from invading Kuwait in 1990 by fear of American nuclear weapons, although he had none himself. It has often been suggested that the reason Saddam did not use his chemical weapons to stave off subsequent defeat was that he had been warned repeatedly by the Americans, Israeli and British of dire consequences if he did so. Coalition forces found no evidence that chemical weapons had been moved into the Kuwaiti theatre, perhaps because the desert was seen as not being conducive to the effective use of chemical weapons. But this consideration would not apply to the use of chemical-armed missiles. Iraq fired conventionally armed missiles at Israel in an effort to draw Israel into the war, and there certainly were chemical warheads available for these missiles. It is true that Tariq Aziz told Rolf Ekeus (then head of UNSCOM) that fear of nuclear attack had been the reason why Iraq had not used its chemicals, which it had certainly deployed to airfields before the Allied attack. But Ekeus dismissed this, believing it to be a line the Iraqis cooked up to try and persuade the UN to lift sanctions by posing as victim of the US. It is also true that President Bush, in a note delivered to Aziz, had threatened a devastating response if Iraq used chemical or biological weapons. But this note had also warned that if Iraq supported terrorist activities or destroyed the Kuwaiti oilfields these actions would equally cause the American public to 'demand the strongest possible response'. Saddam went on to do both these things, and nothing happened. In fact, as Colin Powell wrote in his autobiography, the Americans had ruled out any use of nuclears right from the start, so Bush's note had been only a bluff. But Saddam could not have known this for sure, so why did he hold off from using his CBW? Two likely reasons are that his command systems had been knocked out from the start and he also knew that his own troops were poorly equipped with CBW defences if the wind should blow the wrong way! So I think Tariq Aziz was flanneling. And, to repeat, Saddam was not deterred from provoking the Israelis by firing Scuds at them despite their nuclear capability.^{xxi}

A fourth example has been provided by Chinese threats against Taiwan. The nearest that matters came to a show-down was in 1996 when

China began conducting military exercises near Taiwan, and launched several ballistic missiles over the island. This was done in response to the possible re-election of then President Lee Teng-hui. The United States, under President Clinton, sent two aircraft carrier battle groups to the region, sailing them into the Taiwan Strait. China was unable to track the ships' movements and being unwilling to escalate the conflict, quickly backed down. The event had little impact on the outcome of the election, since none of Lee's contestants were strong enough to defeat him, but it is widely believed that China's aggressive acts, far from intimidating the Taiwanese people, gave Lee a boost that pushed his share of votes over 50 percent.

None of these four incidents is unambiguous. But all can be read as examples where a non-nuclear weapon state, faced with threats of attack by a nuclear weapon state, has gone ahead exactly as if such a threat did not exist. It follows that a non-nuclear weapon state, even when faced with the threat of nuclear blackmail, is by no means bound to knuckle under.

The shadow of a doubt

This is not to argue that a non-nuclear Britain could never be constrained in its actions vis-à-vis a nuclear adversary by fear of nuclear blackmail. Conceivably it might be, though we have failed to unearth a single unequivocal precedent. What is clear is that for Britain to submit under these circumstances is far from a foregone conclusion. The most important factor in such a situation is certain to be the attitude of the United States and we have had to postulate a very narrow range of circumstances where America - while generally supportive of Britain, otherwise the whole question of British Trident is moot anyway - would not put her own nuclear arsenal into the balance. An alliance with another nuclear protector is not impossible. Another possible line of response lies in ballistic missile defence. Both these are highly problematic. A far more likely outcome is that Britain would come to rely on adroit diplomacy coupled with a determination to call any would-be blackmailer's bluff. All the examples we have examined point in this direction. And some 182 other nations find themselves in precisely this situation, any of whom could in principle use the blackmail argument for acquiring nuclear weapons of their own.

Seen in this light the British determination to replace Trident becomes a decision based on a philosophy of British exceptionalism - of 'just-in-case' posited on a most unlikely concatenation of circumstances.

An insurance policy, provided the cost is not exorbitant, against a low risk but devastating event is not unreasonable. In a highly volatile security environment, where nuclear proliferation is a continuing danger, there is some comfort in such insurance. Most people in the UK probably believe this. But in no other area of military provision is the justification of a general insurance against the unforeseen accepted. At a moment when the defence budget is under extreme stress and many important capabilities are already being foregone, it is time to reflect on how thin the justification for Trident really is and to evaluate it fairly against the opportunity costs.

This is not straightforward. We know, because Des Browne the then Defence Secretary told us so in January 2008, that ‘the annual in-service costs of the UK’s nuclear deterrent, including Aldermaston (was) around 5-6 percent of the defence budget’.^{xxii} Ian Davis, (formerly Director of BASIC), has recently come up with a figure of £2.24 bn for the present annual operating and maintenance costs. On top of that come the procurement costs for Trident Replacement. The 2006 White Paper estimated the total procurement cost of the Replacement at £15bn to £20bn at 2006-07 prices. Absurdly it promised that this would not come ‘at the expense of the conventional capabilities our armed forces need’. This promise was obviously undeliverable. There followed the somewhat risible dialogue on this point last summer, between Liam Fox and the Chancellor, which ended with the cost of Trident Replacement firmly lodged inside the defence budget. How much will it come to?

Real expenditure will begin only with the ‘Main Gate’ decision, now deferred till after the next election. The in-service date of the successor system has been rolled on from 2024 to 2028 and heavy expense will continue until all four (or three) submarines have been delivered – say 2032. Work on costings is said to be in progress with savings of £3.2bn promised over the next 10 years. Maybe there is some double counting. Perhaps collaboration with the French will save a bit. It is impossible to disentangle all this and Dr. Fox has told us to expect further costings after the ‘Initial Gate’ decision is announced – promised for last autumn but still not forthcoming. A reasonable guess is that the revised Trident Replacement programme will still cost not less than £20bn, from 2016 to 2032. This averages out at some £1.25bn a year. Add that to the running costs of the existing system, and we get a total figure of around £3.5bn a year^{xxiii}.

If the Trident system was promptly axed not all of this money could be saved because one must factor in the costs of cancellation and decommissioning.^{xxiv} In 2006 the MoD estimated its current nuclear decommissioning liabilities, covering all its facilities, at £9.6bn. This was a 'ballpark' figure. Much of it involved existing clean-up costs, but the projected costs for scrapping Trident were well over £4bn, at 2006 prices.^{xxv} No doubt the figure would be higher now, but even at £7bn it would wipe out only two years worth of the potential savings from scrapping Trident. Another charge on this would be to cover the £18bn shortfall over the next decade reported last month by Peter Luff, 'because the costing of the defence review was not properly worked out'. That would absorb another five years worth of the saving. But it still leaves some £30bn in future years to meet other expenditure foregone.^{xxvi} And if you tell me that any such savings would be clawed back by the Chancellor anyway, and not left in defence, then so be it. The money would be better spent on motorways and railways, hospitals and universities, or simply deficit reduction, than on salvaging Trident.

To sum up. The purpose of these comments has been to examine the statement "we can only deter ... threats [of nuclear blackmail] in future through the continued possession of nuclear weapons". We have seen that this is far from being the brass-bound certainty for which it is commonly taken. The precedents do not support it. It is a partial truth at best, and needs to be carefully balanced against the many other factors which will determine the future security of this nation. In the opinion of this writer Trident is a White Elephant that is not worth its keep.

Endnotes

ⁱ 'The future of the United Kingdom's Nuclear Deterrent' Cm 6994. December 2006. pp. 6,7

ⁱⁱ This paper does not discuss the point raised in the White Paper about countering the 'risk that some countries might in future seek to sponsor nuclear terrorism from their soil.' It is far from clear that British possession of nuclear weapons could play any part in addressing this problem

ⁱⁱⁱ Four non-parties to the treaty are known or believed to possess nuclear weapons: India, Pakistan and North Korea have openly tested and declared that they possess nuclear weapons, while Israel has had a policy of opacity regarding its own nuclear weapons program. North Korea acceded to the treaty, violated it, and in 2003 withdrew from it

^{iv} No doubt the Argentine Government judged - correctly - that the British would not risk the opprobrium of breaching the taboo on nuclear use over such distant islands. There is a story recounted by his psychoanalyst that President Mitterand was called by Margaret Thatcher to say that unless the French released the codes that would allow Britain to jam the Argentine *Exocet* missiles she would order a nuclear

strike on their air base at Cordoba. Mitterand, thinking she was batty enough to do it, complied. If true this is the only instance I know where our deterrent was of any military advantage to us! (Green, Robert p. 36.)

^v *Defence White Paper*. December 2003, Cm 6041-1. Paragraph 3.5, p.8

^{vi} *Future Capabilities*. July 2004. Cm 6269. Paragraph 1.2, p.2.

^{vii} Dr. Fox. House of Commons. Written Answer 16 February 2011.

^{viii} Their web site claims that the Trident Refit Facility provides ‘total integrated logistical supply support to attack and UK submarines’ including degaussing services.

^{ix} The exact wording is ‘source, by-product and special nuclear material, and other material for research on, development of or use in atomic weapons, when the Government of the United States ... determines that the transfer of such material is necessary to improve the United Kingdom’s atomic weapon design, development or fabrication capability’.

^x 1958 Atomic Energy Agreement . *UN Treaty Series*, 1959, Vol. 326, No. 4707, pp. 4-20
Amendment. *UN Treaty Series* 1960, Vol. 351, No. 4707, pp. 458-464.

^{xi} Message to Congress from President Bush, 14 June 2004. See <http://www.whitehouse.gov>

^{xii} The Heatshield kits were made by Lockheed Martin. The arming, fusing and firing (AF&F) systems for the British warhead were designed by Sandia National Laboratories, and are almost certainly bought from the United States *in toto*. A new Neutron Generator was designed and built between 1997 and 2002 and first units were supplied to the British in 2003. The Gas Transfer System is also American. Because Tritium gas is radioactive and can penetrate stainless steel it requires special reservoirs. Because it decays to produce helium, thus increasing the pressure in the reservoirs, it has to be replaced regularly. British tritium is transported to America as uranium tritide, converted to tritium gas and loaded into reservoirs at the Savannah River site. Both the Neutron Generators and the Gas Transfer System, being limited life items, are replaced on a regular basis. This is done in the Re-entry Body Process Building at Coulport, before the warheads are fitted to the missiles on board the submarines.

^{xiii} *The National Security Strategy of the United Kingdom*. 2008. Paragraph 3-11 p. 14

^{xiv} *Ibid*.

^{xv} America adopted a posture of benevolent neutrality at the time of the Falkland Islands campaign in 1982. Clearly this is an inexact parallel because the adversary, Argentina, was not a nuclear weapons power.

^{xvi} Interestingly this wording was followed closely in the exception allowed by the International Court of Justice in their *Advisory Opinion on the Legality of the Threat or Use of Nuclear Weapons*, 29 October 1996,: ‘the Court cannot conclude definitively whether the threat or use of nuclear weapons would be lawful or unlawful in an extreme circumstance of self-defense, in which the very survival of a State would be at stake.’

^{xvii} Lord Henley. House of Lords, 11 January 1995.

^{xviii} The Royal Navy claims that, since the British sonar is superior to the Americans, this option is also unfeasible.

^{xix} This is not a complete explanation. The attack on Suez attracted the condemnation of other members of NATO, the Commonwealth and the General Assembly of the United Nations. But it was the run on the pound and the oil embargo orchestrated by the United States that were decisive in forcing the Anglo-French forces to declare a cease-fire and withdraw.

^{xx} Dimona had by then reportedly manufactured twenty operational nuclear warheads.

^{xxi} 88 SCUD missiles in all against Israel and Saudi Arabia, killing about 50 people and wounding 250 or so.

^{xxii} The defence budget is now being reduced, by 7.5 percent over the next four years, so Trident’s proportion of the Defence Budget will rise accordingly. Meanwhile the annual costs of Trident will rise, at least in line with inflation and probably more.

^{xxiii} More like 10 percent of the Defence Budget

^{xxiv} Ian Davis has done some work on this, and reports as follows. ‘Even before the costs of laying off the thousands of naval personnel and civilians who depend on Trident, there are several major problems: the four Vanguard class Trident submarines need to be decommissioned, their nuclear reactors stripped out and stored; there are up to 200 nuclear warheads to dispose of; their highly-contaminated storage, manufacturing and testing facilities need to be decommissioned; and the expensive contacts the MoD has

signed with three of the world's largest military contractors to run these facilities need to be paid off. Then there is the vast infrastructure supporting Trident: several thousand naval and civilian staff at its base at Faslane and the warhead base at nearby Coulport; 6,500 staff and contractors employed in testing, building and maintaining its warheads at AWE Aldermaston and Burghfield in Berkshire; and hundreds more at the Rolls-Royce nuclear reactor design centre in Derby and the Vulcan reactor testing centre at Dounreay. This is a huge pool of talent and expertise which, once lost, could never be re-created'. But it is a national asset only to the extent that the product itself is of value. Finding other jobs suitable to their skills and seniority would be difficult, apart from the small number who could be employed in areas such as disarmament verification. But job preservation, *per se*, is not being given high priority in other areas of the public service.

^{xxv} See www.parliament.uk Hansard Written Answers, 24 July 2006: Column 776W

^{xxvi} The existing losses from the UK's Strategic and Security Defence Review include:

For the RAF

All Harriers retired.

All Sentinel (surveillance) aircraft retired after only 2 years in service.

All Nimrod (maritime reconnaissance) broken up, not yet in service.

Of 232 new Typhoon aircraft bought, all but 92 scrapped or sold.

For the Navy

No carrier-borne aircraft available for next ten years.

One out of two new aircraft carriers no longer required.

Escort force cut from 23 (Frigates and Destroyers) to 19.

For the Army

Tanks cut by 40 percent.

Heavy Artillery cut by 35 percent.

2,800 armoured vehicles put in long-term storage, sold or scrapped.

Major formations cut from 2 Divisions and six brigades to one division and five brigades.

All out of Germany by 2020.

For the Trident Force

Operational missiles per submarine from 12 to 8, and warheads aboard each boat from 48 to 40.

Operationally available warheads from < 160 to ≤120 and overall NW stockpile from ≤ 225 to ≤ 180.

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