

Tactical nuclear weapons:

Europe's redundant weapons of mass destruction

General Sir Hugh Beach



ISIS, Saferworld and ISIS Europe

April 2004

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ISIS (International Security Information Service)

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Acknowledgements

This publication has been made possible by the generous support of the Polden Puckham Charitable Foundation.

Acronyms

CTBT	Comprehensive Test Ban Treaty
DOE	Department of Energy
GLCM	ground-launched cruise missile
HDBT	hardened and deeply buried target
NPG	Nuclear Planning Group
NPR	Nuclear Posture Review
NPT	Nuclear Non-Proliferation Treaty
NSA	Negative Security Assurance
RNEP	Robust Nuclear Earth Penetrator
TNW	tactical nuclear weapons
UNIDIR	UN Institute for Disarmament Research

Executive summary

THIS PAPER EXAMINES the case for the withdrawal of US tactical nuclear weapons (TNW) from European soil on the following grounds:

- The new strategic context makes redundant the original purpose of these weapons' deployment.
- There is a concern that these weapons will play a part in the new US doctrine of pre-emptive use of nuclear weapons to achieve military objectives.
- There is a need to buttress the non-proliferation regime through reducing the circumstances in which nuclear weapons might be used rather than undermining that regime by devising new purposes for nuclear weapons.
- The removal of all TNW from nuclear arsenals (especially those in the former Soviet Union) would constitute an important act of disarmament that would increase international and regional security.
- Their removal would also avoid the enormous (opportunity) cost of sustaining these deployments through planned modernisation of storage facilities.
- Their removal would be another step towards fulfilling the political commitments made by the US and the other established nuclear powers under Article VI of the Nuclear Non-Proliferation Treaty (NPT) to eliminate their nuclear arsenals.

The paper recommends:

- NATO should revise its doctrine of flexible response making it plain that nuclear weapons would be used only in conditions of extreme national self-defence.
- America should withdraw all TNW now on European soil to the Continental US, and accept a binding obligation not to deploy them in any foreign country.
- All five recognised nuclear weapon states should stand strictly by their undertaking not to use nuclear weapons against non-nuclear weapons states, unless such a state attacked them in alliance with a nuclear weapon state. Deliberate ambiguity regarding possible use in response to an attack with chemical or biological weapons should be jettisoned.
- The US, Britain and France should enter into an undertaking not to develop any new design of nuclear weapons. Russia and China should be invited to join them as soon as they are ready to do so.
- Further reductions in holdings of TNW should be negotiated between Russia and the US.

Until such time as countries remain unwilling to act in these ways, as a minimum:

- Russia and the US should reaffirm their 1991 declarations, adopt mutually agreed guidelines on their implementation, agree transparency measures on remaining stocks by type, location, future plans etc. and in due course adopt measures of mutual verification.

1

The first 50 years

DURING THE 20 YEARS after 1945 the US and Soviet Union found ways of making nuclear warheads small enough to be used as battlefield weapons. These quickly evolved into a variety of different shapes and sizes. Air forces were equipped with bombs and air-to-surface guided missiles. Navies, in addition to aircraft bombs, developed nuclear depth charges and anti-submarine rockets. Armies were equipped with nuclear artillery of various calibres and free-flight rockets. Ground-launched cruise missiles (GLCMs), landmines and surface-to-air defence missiles were all given nuclear warheads. The US even fielded a nuclear mortar, *Davy Crockett*, until it realised that this was more dangerous to its own troops than to an enemy.

Tactical doctrine evolved to match, and in the 1950s and 1960s it was assumed that in any war between NATO and the Warsaw Pact nuclear weapons would be used from the outset. During the 1970s and 1980s, however, the practical limitations became increasingly apparent. Tactical planning in NATO came to rely less on the early use of nuclear weapons and the more outlandish of them were quietly withdrawn. These included the nuclear air defence missiles and landmines, nuclear versions of GLCMs and naval anti-submarine rockets.

The end of the Cold War saw dramatic reductions in tactical nuclear weapons (TNW) on both sides, brought about not by treaty but by presidential declaration. The first was by President George Bush on 27 September 1991.¹ He committed the US to eliminating its entire inventory of ground-launched short-range nuclear weapons (ie all nuclear artillery shells and short-range ballistic missile warheads) and to withdraw all TNW from surface ships, attack submarines and land-based naval aircraft (ie all nuclear *Tomahawk* cruise missiles from ships and submarines, all nuclear bombs from aircraft carriers and all nuclear depth charges from aircraft carriers and land-based patrol aircraft).

Many of these warheads were to be destroyed; the remainder placed in secure storage ashore. On 5 October 1991, in response to these US undertakings, President Gorbachev announced that the Soviet Union would destroy all nuclear artillery ammunition and nuclear warheads for tactical missiles. Nuclear warheads for anti-aircraft missiles would be removed from army units and some destroyed. All nuclear mines would be eliminated. All TNW would be removed from surface ships and multi-purpose submarines. These, as well as weapons from ground-based naval aviation, would be stored centrally and some destroyed.² On 29 January 1992 these Soviet commitments were reaffirmed by President Yeltsin on behalf of Russia.³

¹ Address to the Nation on Reducing United States and Soviet Nuclear Weapons.
<http://bushlibrary.tamu.edu/papers/1991/91092704.html>.

² Letter dated 11 October 1991 from the Permanent Representative of the USSR to the UN, A/46/592, 23 October 1991.

In June 1992 the French decided to cancel production of a tactical nuclear missile known as *Hadès* and Britain announced that its ships and aircraft would no longer carry tactical nuclear warheads.^{4 5}

While the legal status of these undertakings is open to question,⁶ there is little serious doubt that they were implemented. By December 1991 South Korea was declared free from US nuclear weapons.⁷ On 2 July 1992 President Bush declared that all ground-launched and naval TNW had been returned to US territory.⁸ By 1993 NATO had reduced the number of nuclear weapons available for its sub-strategic forces in Europe by 85 percent. By 1994 the US Army had been completely de-nuclearised.⁹

According to a detailed study carried out for the UN Institute for Disarmament Research (UNIDIR), between 1991 and 2001 the number of operational TNW in the hands of the US armed forces reduced by more than three-quarters from 7,165 to 1,670; the number of nuclear storage sites more than halved and the number of nuclear-certified units reduced by 85 percent. Progress has also been made in destroying the TNW no longer needed.¹⁰

Much less precise figures are available for Russian forces, but within a few months it had been announced that all TNW had been withdrawn from Ukraine, Belarus, the Baltic States, Kazakhstan and the Central Asian republics.¹¹ The UNIDIR study estimates that between 1991 and 2001 the number of deployed Russian TNW was reduced from more than 15,000 to 3,590 – a similar percentage reduction to that achieved by the US.¹² In August 1998 the British Government announced that all British free-fall nuclear bombs had been dismantled¹³ and in the same year *Hadès* disappeared from the French inventory.¹⁴

In the 1994 edition of his compendium on arms control Jozef Goldblat said of these developments:

*Because of their small size, large numbers and widespread dispersion, tactical nuclear weapons cannot be kept under strict supervision. Maintaining command and control over such weapons in a wartime situation would be particularly difficult: the fear that they may be overrun by an enemy early in a conventional armed conflict could prompt local commanders to resort to their early use and start a nuclear war unintended by political leaders. The unilateral undertakings to reduce or eliminate tactical nuclear weapons, especially those assumed by the United States and the Soviet Union, marked an important change in the policies of the nuclear powers. They amounted to a formal recognition that nuclear weapons were no longer useful for war fighting.*¹⁵

³ Susiluoto T (Ed), *Tactical Nuclear Weapons: Time for Control*, (UNIDIR, Geneva 2002), p 59.

⁴ Goldblat J, *Arms Control*, (Sage Publications, London, Second Edition 2002), p 98.

⁵ British Army nuclear artillery shells and rocket warheads had always been American. When these were removed Britain automatically lost that capability.

⁶ Radchenko S, 'Tactical Nuclear Weapons Regime: is it Legally Binding', in *Tactical Nuclear Weapons* (Note 3) pp 75-92.

⁷ Sterngold J, 'Seoul says it now has no nuclear arms', *The New York Times*, 19 December 1991.

⁸ President George Bush, 'Statement on the US Nuclear Weapons Initiative', 2 July 1992.

⁹ US Department of Defense, Press Release and 'Nuclear Posture Review' Briefing, 22 September 1994.

¹⁰ Handler J, 'The September 1991 Presidential Nuclear Initiatives and the Elimination, Storing and Security Aspects of TNWs', in *Tactical Nuclear Weapons* (Note 3), Tables 5, 7 and 13.

¹¹ *Ibid*, Table 9 and related footnotes.

¹² *Ibid*, Table 13.

¹³ Goldblat J, *op cit*, p 99

¹⁴ *The Military Balance 1998/99*, (International Institute of Strategic Studies, London, October 1998), p 50.

¹⁵ Goldblat J, *Arms Control*, (London, First Edition, 1994), p 74.

Regrettably, in his 2002 revision of this book he has been compelled to modify that conclusion to say:

*They could be understood as an indirect recognition that nuclear weapons were no longer useful for war fighting, even though the possibility of using TNW remained a component of the military doctrines of the nuclear-weapon powers.*¹⁶

The remainder of this paper examines why.

¹⁶ Goldblat J, Arms Control, (London, Second Edition, 2002), p 99.

2

NATO nuclear doctrine and forward basing

THE CLASSICAL NATO nuclear policy emerged in a series of 'guidelines' put out between 1967 and 1972.¹⁷ The aim was to defend at three levels: direct defence (which meant conventional defence) against a non-nuclear attack for as long as possible; controlled escalation through the use of TNW; and finally general nuclear response if all else failed. These guidelines, developed under the general rubric of 'flexible response' coupled with the overt acceptance of 'first use' by NATO as a last resort, were devised at a time when Soviet conventional forces in western Europe outnumbered NATO's by a factor of three or more to one.¹⁸

The dismemberment of the Warsaw Pact and of the Soviet Union, followed by the expansion of NATO, has meant that the ratio of conventional forces as between Russia and NATO has been more than reversed. It might have been expected that this fact, coupled with recognition that nuclear weapons were 'no longer useful for war fighting', would lead to some reconsideration of this doctrine. But although there has been endless debate among academics and expert commentators on the pros and cons of a policy of 'no first use' of nuclear weapons, no such change has taken place.¹⁹

Mr Hoon, British Secretary of State for Defence, in a written answer to a parliamentary question on 11 July 2002, said:

*A policy of no first use of nuclear weapons would be incompatible with our and NATO's doctrine of deterrence, nor would it further nuclear disarmament objectives. We have made clear, as have our NATO allies, that the circumstances in which any use of nuclear weapons might have to be contemplated are extremely remote. Our overall strategy is to ensure uncertainty in the mind of any aggressor about the exact nature of our response, and thus to maintain effective deterrence.*²⁰

This makes it clear that NATO's policy still remains one of flexible response, involving the possible first use of nuclear weapons as a last resort.

Even more surprising is that, as a counterpart to this doctrine, US nuclear weapons are still held ready for use on the territory of six non-nuclear members of NATO and

¹⁷ Beach H and Gurr N, *Flattering the Passions: Or, the Bomb and Britain's Bid for a World Role*, (I B Tauris, London, 1999), p 78.

¹⁸ Mulley F, *The politics of Western Defence*, (Thames and Hudson, London, 1962), pp 45 and 123.

¹⁹ See, for example, Pullinger S, 'Preventing the use of chemical and biological weapons', ISIS Briefing Paper, No 72, July 1998.

²⁰ Official Report, House of Commons, Column 1133W.

in the UK. These arrangements date from the late 1950s and early 1960s when bilateral Programmes of Co-operation were concluded between these countries and the US, most of which remain in force today. The weapons are stored in specially constructed vaults on twelve airfields: three each in Germany and Turkey; two in Italy, and one each in Belgium, the Netherlands, Greece and the UK.²¹ The weapons are B61 gravity bombs, delivered by strike aircraft, with an adjustable yield of between 1 and 345 kilotons.

All the strike aircraft are dual capable, being specially equipped for nuclear munitions in addition to their normal role. The crews are trained and exercised in peacetime for their possible nuclear missions. The nuclear weapons are all owned by the US and in peacetime they remain under the sole control of the US Air Force. They would be transferred to the partner nations only in the event of war. The vaults have a total capacity of 360 weapons but it is believed that the holding of live weapons is about half this, say 150-180 bombs. One vault on each base contains training weapons to exercise ground procedures and flight training. The vaults are to be refurbished in 2005 to keep them operational till 2018. The costs to the US Air Force of providing and storing the weapons and to the allied air forces of owning and operating the aircraft are said to be "extraordinarily high".²²

Common sense would suggest that both the policy and practice of 'nuclear sharing' are out of date and should be scrapped. Why has this not happened? One aim of the policy has been to reassure the non-nuclear member states of NATO that they have a voice in the process of nuclear planning and decision-making. The Nuclear Planning Group (NPG) was founded in 1966 to ensure that the interests of NATO's non-nuclear members would be safeguarded after the entry into force of the Non-Proliferation Treaty (NPT). Since 1979 the NPG has been open to all NATO members, giving equal standing to each.

Clearly, however, just as any decision by NATO to use nuclear weapons would be subject to unanimity in the alliance, so nuclear deterrence equally protects all member states. It does not depend on a member state storing nuclear weapons on its territory or being able to launch them in time of war. Canada ended its participation in nuclear sharing in 1989. Iceland, Denmark, Norway and Spain have always refused to allow the stationing of nuclear weapons on their territory in peacetime. The same protection extends to the new members of NATO alongside formal undertakings that there will be no deployment of nuclear weapons on their soil, no storage vaults constructed for these weapons, no provision of nuclear capable aircraft or training of aircrew and no Programmes of Co-operation with these countries.

Another traditional argument linked the deployment of US troops to the presence of US nuclear weapons on the basis of 'no nukes – no troops'. If this argument ever had any merit other than as a slogan, it certainly has none now. As explained above, there are no longer any US nuclear weapons in Japan or South Korea, and yet their troops remain. Nor was there (in public at least) any discussion of deploying nuclear weapons in Saudi Arabia as a condition for deploying US forces there. It seems obvious that the non-nuclear allies in NATO could withdraw from the present forward basing arrangements without any fear of losing influence over NATO nuclear policy, or being criticised for shirking their share of nuclear roles, risks and responsibilities.

²¹ In the case of the British base (Lakenheath), one of the Italian bases (Aviano) and one of the Turkish bases (Incirlik) the aircraft belong to fighter wings of the US Air Force, equipped with F-15E or F-16s. On seven more bases the aircraft are operated by the host nation: Büchel (German Air Force - Tornado); Kleine Brogel (Belgian Air Force - F-16); Volkel (Royal Dutch Air Force - F-16); Ghedi-Torre (Italian Air Force - Tornado); Araxos (Greek Air Force - A7E); Murted Akinci and Balıkesir (Turkish Air Force - F-16)). The vaults at the last two airfields are on caretaker status as are those at Nörvenich (German Air Force - Tornado). The base at Ramstein (Germany - US Air Force C-130) is for storage and transit only.

²² Nassauer O, 'NATO's Nuclear Posture Review: Should Europe End Nuclear Sharing', BITS Policy Note 02.1, April 2002, Berlin Information Centre for Transnational Security. The costs of the weapons, aircraft and bunkers are, of course, 'sunk', unless the plan to refurbish the bunkers goes ahead. Costs of training and custody are recurrent.

Still less need this encourage the withdrawal of US troops from Europe. The US military is already discussing provision of lighter and more mobile units and stationing them in less expensive countries – a move which Europeans ought to welcome.²³

It follows that the continued presence of US TNW in Europe (including in Turkey) is due more to institutional paralysis than to logic: the desire to demonstrate the US's continued commitment to European security and some vague concept of risk and burden sharing among NATO allies. As Mr Hoon said in a written answer to the House of Commons on 1 February 2002:

*Some US nuclear weapons remain based in the UK in accordance with long-standing NATO policy. Nuclear forces based in Europe and committed to NATO provide an essential political and military link between the European and North American members of the Alliance.*²⁴

It would be more rational to argue that Europe and the US share a common interest in reducing the thousands of tactical nuclear warheads in Europe left over from the cold war. Nearly all of these, as we have seen, are Russian. As long ago as 1997, in Helsinki, Russia and the US mooted further measures to reduce tactical nuclear systems. But nothing has come of them. If the six non-nuclear members of NATO who currently train for a tactical nuclear role were ready to give this up it could open the way for repatriating all the remaining US TNW. This would meet Russia's long-standing wish to rid European territory of nuclear weapons within range of its territory. It could act as an important confidence-building measure, and encourage further mutual reductions in TNW. In view of the US's acute reluctance to enter into fresh treaty commitments, an exchange of unilateral announcements might again be the best method. Meanwhile, increased transparency in this area is a necessary first step.²⁵

²³ International Herald Tribune, 11 February 2003.

²⁴ Official Report, House of Commons, Column 602W.

²⁵ 'NATO's Nuclear Posture Review', (Note 20). A discussion of this whole problem by NATO in June 2002 led to no significant changes. See 'Fall 2002/Prague Summit', BASIC's NATO e-mail Service, www.basicint.org/europe/NATO/fall2002tacticalnuke.htm.

3

The US Nuclear Posture Review

GREAT CONCERN HAS been aroused by the US Nuclear Posture Review (NPR) submitted to Congress on 31 December 2001, of which excerpts have become publicly available.²⁶ It establishes a New Triad consisting of:

- Offensive strike systems, both nuclear and non-nuclear;
- Defences, both active and passive; and
- A revitalised defence infrastructure

These are bound together with enhanced command, control and information systems. In his covering letter to Congress, Secretary of Defence Donald Rumsfeld said that the result would be to make the US less dependent than it has been in the past on nuclear forces to provide its offensive deterrent capability. But many of the proposals in the report suggest, on the contrary, a greater emphasis on nuclear weapons. For instance:

1. The report gives examples of 'immediate contingencies' for which the US must be prepared in setting requirements for nuclear strikes. These include a North Korean attack on South Korea or a military confrontation over the status of Taiwan. It lists also Iran, Syria and Libya among countries that could be involved in such contingencies, on the grounds that all sponsor or harbour terrorists and all have active programmes to develop weapons of mass destruction and missiles.
2. The report highlights the fact that the US at present has no capacity to produce the plutonium 'pits'²⁷ that form the primary component of nuclear warheads. Work is under way to provide an 'interim capability' at Los Alamos by the end of this decade and the report calls for a 'new modern facility' for the long term. Tritium production, halted for 15 years, was to restart in 2003.
3. The report proposes to reduce the time needed to resume nuclear testing from the current 2–3 years down to one year or less.
4. Under the heading of an 'Advanced Concepts Initiative' proposals are made for modifying existing nuclear weapons to provide additional yield flexibility, improved earth-penetrating weapons and reduction of collateral damage.

²⁶ 'Nuclear Posture Review [Excerpts]' See www.globalsecurity.org/wmd/library/policy/dod/npr.htm.

²⁷ The 'Pit' is the core of fissile material at the heart of a nuclear warhead. It derives from the American use of the word meaning 'pip'.

Taken together these proposals clearly imply a renewed willingness to regard nuclear weapons as useful and indeed usable weapons, not least in a tactical context. Concerns have focussed on two projects in particular: 'bunker-busting' nuclear weapons and 'mini-nukes'.

The case for concentrating on the defeat of hardened and deeply buried targets (HDBTs) rests on the alleged existence of over 1,400 underground facilities, known or suspected, for use by potential enemies as command centres, refuges or stores for missiles and nuclear, biological or chemical weapons. The depth of these structures, together with their steel and concrete reinforcement, calls for highly accurate intelligence and precise weapon delivery. They may prove invulnerable to destruction by conventional weapons.²⁸

In 1997 the US added an earth-penetrating version of the B61 bomb to its nuclear arsenal. Known as the B61-11 this munition has a yield of between 0.3 and 340 kilotons, contained in a needle-shaped case made of depleted uranium and dropped without a parachute. Tests have shown, however, that it could penetrate only about 20 feet into dry earth when dropped from 40,000 feet. This means it could not destroy very deeply buried bunkers or caves. Nor is there any prospect that the radioactivity of the weapon's nuclear burst could be contained.²⁹

According to one well-founded calculation, a weapon twice the length of the B61-11, even if accelerated by a rocket, could not penetrate more than about 80 feet. The fallout produced by a one-kiloton warhead at that depth would kill everyone on the surface within a radius of about half a mile in still air. Wind could carry it for tens of miles.³⁰ The new warhead would apparently be designed 'with a much lower yield ... producing less fallout by a factor of ten or twenty'.³¹ But immense lethal fallout would still be bound to result

The case for 'mini-nukes' in general is less well defined. The Pentagon is said to be seeking a completely new warhead design with a yield of five kilotons or less. This could address one or more of the requirements set out in the NPR 'to attack mobile and re-locatable targets, to defeat chemical or biological agents, to improve accuracy and limit collateral damage'.³² It is said that to rely on high-yield strategic weapons for such purposes would be self-deterring and the development of mini-nukes could ensure flexibility in decision making.

At present, US legislation prohibits the research or development of any nuclear weapon of five kilotons or less.³³ However, on 7 November 2003, the House-Senate Conference Committee reached agreement on the National Defense Authorization Act for Fiscal Year 2004 (HR 1588). It decided to repeal the ban on research of low-yield nuclear weapons, but stipulated that the Department of Energy (DOE) is not allowed to perform any development work until authorised by Congress. It granted the administration's request for \$15 million for a Robust Nuclear Earth Penetrator (RNEP) and authorised \$6 million for low-yield nuclear weapons research (Advanced Weapons Concepts Initiative) as requested by the administration. The House-Senate Conference Committee on the Energy and Water Appropriations Act for Fiscal Year 2004 (HR 2754) reached somewhat different decisions in that it cut \$7.5 million from the Administration's request for the RNEP programme and also stipulated that \$4 million of the \$6 million dedicated to the Advanced Weapons Concept programme

²⁸ 'Nuclear Posture Review', op cit, pp 16,17.

²⁹ Bromley M, Grahame D and Kucia C, 'Bunker Busters: Washington's Drive for New Nuclear Weapons', BASIC Research Report 2002.2, July 2002, p 43, <http://www.basicint.org/pubs/Research/2002BB.pdf>.

³⁰ Steven Weinberg, 'The Growing Nuclear Danger', The New York Review of Books, 18 July 2002. www.nybooks.com/articles/15604.

³¹ 'Nuclear Posture Review', op cit, p 17.

³² Ibid, pp 16-18.

³³ 'Bunker Busters', op cit, p 34.

would not be available until the DOE submits a detailed report to Congress on future nuclear reductions.³⁴

The RNEP project, like that for mini-nukes, would be doubly unwelcome if used as the trigger for renewed nuclear testing. So far it seems that, while the US is not likely to resume nuclear testing in the next few years, there will be money for enhanced test readiness and increased pressure to resume full-scale tests.³⁵ Any such resumption would contravene the US's obligations under the Comprehensive Test Ban Treaty (CTBT).

³⁴ Charles Ferguson, 'Congressional Debate on Nuclear Weapons Policy: From the Nuclear Brink to the Slippery Slope', Monterey Institute at: <http://cns.miis.edu/pubs/week/031027.htm>.

³⁵ 'The Republican Victory in the US Congress: What will it mean for Nuclear Weapons and Missile Defence policies?', BASIC Notes, 14 November 2002. www.basicint.org/pubs/Notes/2002USelection.htm.

4

Negative Security Assurances and deliberate ambiguity

All five recognised nuclear-weapon states have given undertakings not to use nuclear weapons against non-nuclear weapon states parties to the nuclear Non-Proliferation Treaty (NPT). Known as Negative Security Assurances (NSAs), these presently take the form of political commitments made in 1995 and formally acknowledged by the UN Security Council in Resolution 984.³⁶ Although they are believed to possess nuclear weapons, India, Pakistan and Israel are not covered by these assurances since they are not parties to the NPT.

North Korea has said it no longer regards itself as bound by the Treaty. The other countries listed in the NPR as liable to give rise to 'immediate contingencies' – Iran, Libya and Syria – are all plainly covered by the NSAs.

Nevertheless senior US officials in several administrations have refused to rule out the use of nuclear weapons in response to attacks with chemical or biological weapons. During the 1990-91 Gulf war President Bush wrote to Saddam Hussein with a thinly veiled threat:

*The United States will not tolerate the use of chemical and biological weapons...The American people would demand the strongest possible response.*³⁷

In April 1996 Secretary of Defence William Perry, writing about a suspect Libyan chemical weapons facility at Tarhuna said that:

*[if] some nation were to attack the US with chemical weapons, then they would have to fear the consequences of a response from any weapon in our inventory. ...we could make a devastating response without the use of nuclear weapons but we would not forswear that possibility.*³⁸

On 22 February 2002 State Department spokesman Richard Boucher, having precisely set out the terms of the NSAs previously given by the US, went on to say:

³⁶ Goldblat J, Arms Control, (London, Second Edition, 2002), p 112.

³⁷ 'Bunker Busters', op cit, p 37.

³⁸ 'US Nuclear Policy: Negative Security Assurances' Arms Control Association Factsheets, March 2002, p 1 www.armscontrol.org/factsheets/negsec.asp?print.

*If a weapon of mass destruction is used against the United States or its allies we will not rule out any specific type of military response.*³⁹

The doublespeak involved in these conflicting stances has traditionally been defended as 'deliberate ambiguity'. While continuing to sign on to the NSAs as a necessary means of maintaining support for non-proliferation, the US has wanted to keep its opponents guessing as to how it would respond to chemical or biological attack. As an official explained in 1996:

*We think the ambiguity involved in the issue of nuclear weapons contributes to our own security, keeping any potential adversary who might use either chemical or biological [weapons] unsure of what our response might be.*⁴⁰

More recently it seems that the veil of ambiguity has been to some extent set aside. According to a report in *The Washington Times* (31 January 2003) a classified document signed by President Bush on 14 September 2002 said:

The United States will continue to make clear that it reserves the right to respond with overwhelming force - including potentially nuclear weapons – to the use of [weapons of mass destruction] against the United States, its forces abroad, and friends and allies.

In a public version of the same directive, issued on 11 December 2002, the reference to nuclear weapons has been blurred slightly by saying "through resort to all of our options" but the message is the same.

³⁹ Ibid.

⁴⁰ 'Bunker Busters', op cit, p 38.

5

Is the increased usability of nuclear weapons for real?

WILLIAM ARKIN TELLS us that in the US Strategic Command in Omaha and at the Pentagon “target lists are being scrutinised, options are being pondered and procedures are being tested to give nuclear armaments some role in the new US doctrine of ‘pre-emption’”. He says that current planning focuses on two possible uses for nuclear weapons: attacking facilities located so deep underground that they might be impervious to conventional explosives and thwarting the use of weapons of mass destruction.⁴¹ These closely match the roles we have just discussed in connection with the NPR. How seriously should we take the possibility that all this is designed not simply to bring pressure on a rogue regime (which is to say essentially bluff) but is to be regarded as practical politics?

The first point to register is that the weapons we are discussing are by definition tactical. Militarily they are of limited and local effect. They do not have to bear the whole weight of strategic nuclear deterrence – that ultimate sanction wielded by nuclear weapons states. Even the lesser ‘pre-strategic’ role of conveying a final warning is not part of their function.⁴² During the heyday of tactical nuclear planning in NATO (during the 1950s and 60s) target analysis for TNW concentrated on the blunting of dangerous enemy thrusts, the attack of troop concentrations (where the ability of neutron flux to penetrate armour and dug-in infantry positions with overhead cover was particularly useful), the destruction of bridges and the blocking of defiles (all but impossible by conventional weapons before the arrival of precision guidance) and the attack of dispersed relatively soft targets such as formation headquarters, anti-aircraft sites, supply dumps and communication nodes.⁴³

At this time NATO was said to possess some 7,000 TNW in Europe and any Warsaw Pact invasion force could indeed have presented that many targets. The Warsaw Pact, in its turn, was said to have several thousand TNW. The absurdity of supposing that a tactical nuclear exchange on this scale could persist for more than a few hours

⁴¹ The Los Angeles Times, 26 January 2003.

⁴² The term ‘Pre-strategic’ was first coined by the French, but has been formally adopted by the British as one of the tasks of the Trident force. ‘The credibility of deterrence also depends on retaining an option for a limited strike that would not automatically lead to a full scale nuclear exchange ... Trident must also be capable of performing this “sub-strategic” role’. The Strategic Defence Review, (Cm 3999, July 1998), para 63 (p 18).

⁴³ ‘Flattering the Passions’ (Note 17), Chapter 2, passim.

before dissolving in chaos was surprisingly slow to sink in.

Such a target set now has a very faded look. This is not because the wars of today do not present such targets. The Taleban blocking approaches to Kabul, and the Iraqi Republican Guard defending Baghdad could be said to be suitable for attack by F-15 or F-16 aircraft using B61 bombs; or by the mini-nukes believed to be under consideration for attacking mobile and re-locatable targets, with improved accuracy and less collateral damage (see earlier). But in every such case modern precision weapons coupled with 'carpet bombing' by B-52s, tank-busting runs by A-10s and the use of C-130 gun-ships offer a far more cost-effective solution, 'minus the fallout'. And it need hardly be pointed out that the capture of a city that is being defended from house to house is as unsuitable a task for TNW as it is possible to imagine.

The notion of 'bunker-busting' has superficial plausibility but is beset with practical difficulties. How is one to determine the location of such bunkers with the necessary pinpoint accuracy – unless of course our own troops are already there, in which case better methods might suggest themselves. What is to be done if the bunkers have been deliberately located under schools, hospitals or apartment blocks? How can one be sure which bunkers are occupied anyway? If the target to be attacked is believed to contain chemical, biological or nuclear weapons material, how can one be sure of incinerating it all, rather than distributing it in active form over a large area?

Still more implausible is the notion of using TNW in response to enemy use of chemical or biological weapons, as discussed in the previous section of this report. If the aim were to retaliate upon the source of these weapons one would either have to trace the missile launchers (a notoriously difficult task in regard to shorter range missiles) or, in the case of bombs or crop-spray aircraft, to attack their bases, which are not a lucrative target for TNW. If, more plausibly, the aim is simply to punish the regime by 'making the strongest possible response' then of course anything goes. If there is no call for accuracy or minimal fallout – why not a megaton strike on the seat of government or the power base of the ruler?

But simply to say this, is to show why such a concept lacks all contact with reality. Frank von Hippel has pointed out that US presidents have in the past threatened to use nuclear weapons in situations which did not threaten the existence of the nation: Truman to force an armistice in Korea; Eisenhower to stop Chinese bombardment of islands in the Taiwan strait; Nixon to obtain a face-saving exit from the war in Vietnam. In the end they all realised that the political costs of breaking the nuclear taboo 'vastly outweighed the military benefits from nuclear weapon use'.⁴⁴

Today these political costs would be certain to include converting the whole of the third world into violent revulsion against the US; greatly encouraging recruitment into anti-American terrorist organisations; destroying NATO; discrediting the United Nations beyond repair and fatally undermining the nuclear non-proliferation regime as more and more countries came to regard a nuclear insurance policy as indispensable in a world become radically more unpredictable. As many people have pointed out 'Nukes are the only weapon that could pose a threat to US survival. Why would you want to open Pandora's box?'.⁴⁵

⁴⁴ Von Hippel F, 'Does the US need new Nuclear Weapons', *Physics and Society*, Vol 31, No 3, July 2002, p 4.

⁴⁵ Nicholas D Kristof, 'Flirting with Disaster: Nuclear talk harms the US', *International Herald Tribune*, 15-16 February 2003.

6

Conclusions

THE BEST SOLUTION to the problem of TNW would consist of five related actions:

1. NATO should revise its doctrine of flexible response making it plain that nuclear weapons would be used only in conditions of extreme national self-defence.
2. America should withdraw all TNW now on European soil to the Continental US, and accept a binding obligation not to deploy them in any foreign country.
3. All five recognised nuclear weapon states should stand strictly by their undertaking not to use nuclear weapons against non-nuclear weapons states, unless such a state attacked them in alliance with a nuclear weapon state. Deliberate ambiguity regarding possible use in response to an attack with chemical or biological weapons would be jettisoned.
4. The US, Britain and France should enter into an undertaking not to develop any new design of nuclear weapons. Russia and China would be invited to join them as soon as they are ready to do so.
5. Further reductions in holdings of TNW should be negotiated between Russia and the US.

Until such time as countries remain unwilling to act in these ways, as a minimum:

Russia and the US should reaffirm their 1991 declarations, adopt mutually agreed guidelines on their implementation, agree transparency measures on remaining stocks by type, location, future plans etc and in due course adopt measures of mutual verification.

Sources

This subject has attracted an enormous literature over the past half-century. The following recent studies have proved to be particularly valuable:

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General Sir Hugh Beach was a member of the ISIS Governing Board. Formerly he was Master General of the Ordnance and Warden of St George's House, Windsor Castle. He writes here in a personal capacity.

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Saferworld
The Grayston Centre
28 Charles Square
London N1 6HT
UK
Phone: +44 (0)20 7324 4646
Fax: +44 (0)20 7324 4647
Email: general@saferworld.org.uk
Web: www.saferworld.org.uk

ISIS Europe
Rue Archimede 5
1000 Brussels
Phone: +32 2 230 7446
Fax: +32 2 230 6113
Email: cgourlay@isis-europe.org
Web: www.isis-europe.org