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Bush Administration's Nuclear Weapons Policy: New Obstacles to Nuclear Disarmament

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SUMMARY

In his May 2001 statement President Bush set forth a comprehensive policy on US nuclear weapons. In place of the Cold War concept of deterrence based on mutual assured destruction, Bush came up with 'new concepts of deterrence' with a broad strategy of active counter-proliferation of weapons of mass destruction and of defence. A new 2002 US Nuclear Posture Review (NPR) seems to be a scenario for the US to construct a unilateral nuclear deterrence set-up on three legs of a 'New Triad': nuclear and non-nuclear offensive strike systems; active and passive defences; and a responsive infrastructure with new capabilities to meet emerging threats.

Bush's December 2001 announcement of US withdrawal from the 1972 ABM Treaty was a declaration of freedom to develop and eventually deploy ballistic missile defence (BMD) systems. Bush's stated mission for BMD is to protect the entirety of the US, its deployed forces, and its allies and friends, whereas both the NPR and Bush's realist aides caution that the BMD need not be 100 per cent effective for deterrence. The logic of BMD behind its recurrences in various versions may be either that the US seeks

to secure freedom of power projection or that it attempts to establish control over space for both offensive and defensive purposes, or both.

Bush's November 2001 statement on the reductions in strategic nuclear warheads falls under the same framework of neo-deterrence along with the BMD. The announced level of 1,700-2,200 is actually higher than the 1997 Clinton-Yeltsin parameters on a START III. Bush's reductions are only in 'operationally deployed' warheads, contrary to the traditional rules for counting all deployed warheads as active forces. The strategic nuclear warheads taken off operational deployment will be maintained as part of the 'responsive force' to augment operationally deployed force if necessary. Nuclear warheads will not be destroyed.

The essence of US nuclear weapons policy resides in the plan to use such arms. The leaked NPR report describes that North Korea, Iran, Iraq, Libya, and Syria are involved in immediate, potential, or unexpected contingencies that may require nuclear attack. Chinese contingencies could be immediate or potential. A Russian contingency is 'not expected' but its nuclear forces and programme remain a 'concern'. US nuclear posture may be revised should its relations with Russia deteriorate significantly. The current deliberate executable war plans will be replaced by flexible 'adaptive' planning. It has been uncovered by other sources that some 2,200 Russian targets are being held at risk, a fact that the nuclear weapons employment policy is basically unchanged from the Cold War concept.

These policies and actions are contrary to the 'willingness to pursue systematic and progressive efforts to reduce nuclear weapons globally', as was reaffirmed by a joint statement of the five acknowledged nuclear weapons states in May 2000. For a breakthrough in nuclear disarmament, new initiatives should be taken by all conceivable actors, states and NGOs, in whatever possible and positive forms. Especially important will be to resurrect and enrich the basic concept of 'common security' for global human security as opposed to the thriving 'national security' syndrome.

Prologue

In May 2000 the five acknowledged nuclear weapon states (NWSs) -- China, France, Russia, the United Kingdom, and the United States -- reaffirmed their 'willingness to pursue systematic and progressive efforts to reduce nuclear weapons globally', in accordance with decision 2 (Principles and Objectives for Nuclear Non-Proliferation and Disarmament) of the 1995 Review and Extension Conference of the Treaty on the Non-Proliferation of Nuclear Weapons (NPT). The stated efforts have not been made, however. In fact, words and deeds since then, by the US in particular, have turned towards the opposite direction.

In the arena of global measures, the Clinton administration failed in October 1999 to win consent of the US Senate to the ratification of the Comprehensive Nuclear Test Ban Treaty (CTBT). Since completing the CTBT in 1996, the Conference on Disarmament (CD) in Geneva has been unable to negotiate any substantive measure on nuclear disarmament including a treaty on the cutoff of fissile material production.

Bilateral relations between the two former nuclear adversaries have not fared any better. Despite delayed approval of ratification of the 1993 Treaty on Further Reduction and Limitation of Strategic Offensive Arms (START II) by Russia in April 2000, the treaty has not been put into force because of domestic politics in the two countries and their consequences. The new US administration under George W. Bush decided to go ahead with development and deployment of ballistic missile defences (BMD), a decision that had been put off by its predecessor. In November 2001 Bush unilaterally set a new framework of reducing strategic nuclear warheads. A month later his administration took a further step in announcing withdrawal within six months from the 1972 Treaty on the Limitation of Anti-Ballistic Missile Systems (ABM Treaty), the cornerstone of US-USSR/Russian nuclear arms control. The September 11th incident in 2001 evidently worked to reinforce Bush administration's military posture. The US appears to be seeking to do away with the condition of mutual assured destruction (MAD) and to gain unrivalled superiority in military capabilities across the board.

It has been fashionable for leaders of the former Cold War rivals to exchange rhetorical statements that the Cold War is over and that the foes have now become friends. In reality, however, the central tenet of nuclear war preparedness inherited from the Cold War era remains basically unchanged, although some alterations have been made. And so is the tendency of big powers to rely on military might as the final arbiter in international relations and particularly in dealing with geopolitical conflicts.

All these have posed formidable obstacles in the way of eliminating nuclear weapons. In looking for clues for a breakthrough in nuclear disarmament, this paper examines Bush administration's nuclear weapons policy by reviewing the new concepts of deterrence it has embraced and a new framework for such a deterrence which integrates enhanced offensive capabilities with defensive systems.

Neo-Deterrence à la Bush

US President George W. Bush made a comprehensive policy statement on US nuclear weapons for the first time on 1 May 2001. The address summed up some of the pronouncements he had made during his presidential campaign and after his inauguration, as well as relevant views expressed by his senior advisors. He publicly bade farewell to the Cold War deterrence strategy and attempted to bring in new concepts of deterrence. (Bush 2001a.)

Bush's concepts of neo-deterrence are based on a view that Russia is no longer an enemy of the US and that countries armed with weapons of mass destruction (WMD) and ballistic missiles are emerging as the new threats. His new deterrence, not different from various versions of deterrence of the Cold War era, relies on 'both offensive and defensive forces' and includes: a strategy to counter proliferation of weapons of mass destruction (WMD); a framework to build ballistic missile defences (BMD); and further reductions in nuclear warheads within the new BMD framework. Bush placed greater emphasis on BMDs and went into some details of its project. (bid., 686-7.) On 13 November 2001 he unveiled a US proposal on reductions to be achieved in the number of US-Russian strategic nuclear warheads. (Bush 2001b.) On 13 December 2001 Bush took a decisive step by announcing that the Russian government had been notified of the US decision to withdraw from the ABM Treaty within six months. (Bush 2001c.) Prior to this announcement, the US had not offered amendments of the treaty to Moscow, conceded John R. Bolton, US Undersecretary of State for Arms Control and International Security. (Bolton 2002, 7.) If elected president, Bush had stated, he would

'offer' Russia the necessary amendments to the ABM treaty so that US BMD deployment might be consistent with the treaty. (Bush 2000, 3.)

In May 2001 President Bush characterised mutual assured destruction (MAD) relations between the US and the Soviet Union during the Cold War as one based on a 'grim premise' of not exchanging nuclear strikes at the expense of mutual annihilation. With the mutual recognition of this threat, Bush found, the US and the USSR sought in the 1972 ABM Treaty to ensure survival of the two nations by leaving both sides completely 'open and vulnerable to nuclear attack'. Today's Russia, Bush declared, is in transition with an opportunity to emerge as a great democratic nation at peace with both itself and its neighbours. (Bush 2001a, 686.)

Instead, Bush invited attention to 'still a dangerous world', with more rations having nuclear weapons and still more having 'nuclear aspirations'. Many have chemical and biological weapons and some already have developed the ballistic missile technology, allowing them to deliver WMD at long distances. Among them are some of the 'world's least-responsible states', Bush noted. According to his perception, today's most urgent threat, different from the Cold War era, stems from a small number of missiles 'in the hands of these states'. Some of 'today's tyrants', he said, are gripped by an 'implacable hatred' of the US, its friends, and its institutions. This is why in such a world Cold War deterrence is 'no longer enough', Bush decided. (*Ibid.*, 686-7.)

The security Bush seeks is one based on more than the grim premise of MAD. It requires a new, broad strategy of 'active nonproliferation, counter proliferation and defenses'. Both offensive and defensive forces are the cornerstone of Bush's new concepts of deterrence. Defenses can strengthen deterrence by reducing the 'incentive for proliferation', he said.

For such defenses, a new framework is needed for the US to build 'missile defenses' to counter different threats of the post-Cold War era. So the US must move 'beyond' the 30 year old ABM Treaty, the US president declared. The US and Russia, said Bush, should 'leave behind' the constraints of an ABM Treaty that perpetuates a relationship based on distrust and mutual vulnerability, for the treaty ignores the 'fundamental breakthroughs in technology' made since the treaty was concluded. They should replace it with a 'new cooperative framework', including in the area of missile defence, Bush suggested. (*Ibid.*, 687-8.)

Two months later US Deputy Secretary of Defense Paul Wolfowitz went somewhat further into Bush's new concepts of deterrence at a Senate committee. He said that the US aim during the Cold War was to deter one adversary from using an arsenal of existing weapons against the US. A deterrence framework the US is working to build for the 21st century, pointed out Wolfowitz, is not only to 'deter' multiple potential adversaries from using existing weapons, but to 'dissuade' them from developing dangerous new capabilities in the first place. This framework, he said, requires a 'different approach to deterrence' -- 'layered defenses' coupled with 'layered deterrence'. Layered defences must be built to deal with missile threats 'at different stages', he remarked, while at the same time there should be a strategy of layered deterrence by developing a 'mix of capabilities' -- both offensive and defensive -- which would be capable of deterring and dissuading a 'variety of emerging threats at different stages'. (Wolfowitz 2001.)

Bush administration's nuclear weapons policy should further be scrutinised by analysing unclassified published versions of the two classified official reports: a Pentagon briefing on the 2002 US Nuclear Posture Review (NPR) compiled by the US Department of Defense, along with an excerpted text of the same report which subsequently leaked out, and an unclassified summary of the 2002 US National Intelligence Estimate (NIE) worked out by the US Central Intelligence Agency.

US Nuclear Posture Review (NPR) 2002

The classified US Nuclear Posture Review (NPR) 2002 appears to have substantiated Bush administration's new nuclear weapons policy, apparently incorporating renewed concepts that should have been formulated by reviewing implications of the out of the blue incident of September 11th in 2001. Unclassified sources give only sketchy descriptions of the secret official report which was submitted to Congress on 31 December 2001. In his foreword to the NPR, US Secretary of Defense Donald H. Rumsfeld wrote on 8 January 2002, the NPR was built on the Pentagon's Quadrennial Defense Review. (US QDR 2001.) With the NPR, the Secretary of Defense pointed out, the US has introduced a 'major change' in the approach to the 'role of nuclear offensive forces' in its 'deterrent strategy' over the next five to ten years. A new US strategic

posture will be composed of three legs of a 'New Triad', which Rumsfeld summarised.1

- (1) Offensive strike systems, both nuclear and mon-nuclear. The systems will be shifted to a 'capabilities-based approach' from the threat-based approach of the Cold War era, thereby providing a 'credible deterrent at the lowest level' of nuclear weapons. The goal of the lowest level is reduction to '1,700-2,200 operationally deployed strategic nuclear warheads' as announced by the president in November 2001. Reduced dependence on nuclear weapons and improved ability to deter attack are to be materialised by the addition of both 'defenses' and 'non-nuclear strike forces'.
- (2) Defences, both active and passive. These defences will provide a range of capabilities to 'dissuade terrorists or rogue states' from threatening US and allied security by political, military, or technical means. And,
- (3) A responsive defensive infrastructure with new capabilities to meet emerging threats. This infrastructure will be translated into revitalising nuclear infrastructure capable of fielding 'new generations of weapons systems' to 'dissuade' adversaries from starting a competition in nuclear armaments.

The New Triad depends for its effectiveness on 'command and control, intelligence, and adaptive planning', remarked the Pentagon's chief, evidently suggesting that the Cold War era 'C³ + I' have been lifted to a new height by making use of recent technological achievements in the so-called revolution in military affairs (RMA). The QDR established the 'foundation' for post-Cold War US defence strategy while the New Triad introduced in the NPR is designed 'for the decades to come' by transforming the Cold War era offensive nuclear triad, Rumsfeld wrote. (Rumsfeld 2002.)

A rough outline of the US NPR was sketched by US Assistant Secretary of Defense for International Security Policy J. D. Crouch at a special Pentagon briefing on 9 January 2002. Crouch had chaired a senior steering group on the NPR, along with the director for Strategic Plans in the Joint Staff.

During the Cold War era the US took a 'threat-based approach' and relied heavily on offensive nuclear forces, with the focus on the Soviet Union. But today, Crouch pointed out, the US has a 'new relationship' with Russia, which is following a much more positive course. Yet, Crouch cautioned, the US may face 'multiple potential opponents' but is not sure who they might be. In this situation, it is very hard to know the 'who' and 'when' the US might have to use its military forces broadly and even its

strategic forces more narrowly. But the US 'do[es] or ought to plan' the kinds of capabilities it needs to counter the capabilities of potential adversaries that are either extant today or will emerge in the years to come, he said.

In this 'new security environment', Crouch continued, the US is trying to encourage a 'positive relationship' with Russia by establishing a 'new framework' in which the relations based on 'mutual assured destruction' (MAD) is to be brought to an end. The Cold War approach to deterrence, which was highly dependent upon offensive nuclear weapons, is no longer appropriate, Crouch noted. Yet, such weapons continue to play a 'fundamental role', he added.

The NPR underscored the need for the US to 'assure' security partners, and 'dissuade', 'deter' and 'defeat' adversaries, and in the nuclear planning context, the US has adopted the concept of a 'capabilities-based' force, Crouch summed up.

The 'dissuasion' as defined by Crouch is a condition in which the US is in a position where other countries that might try to challenge the US or might try to find 'asymmetrical' ways of attacking the US are going to find it very difficult for two reasons. One is that the US will maintain sufficient forces to put itself 'beyond the reach' of those countries challenging to develop themselves as a peer competitor to the US. But secondly, Crouch observed, there will be a lot of cases where offensive nuclear retaliatory deterrence may 'not be appropriate' or the US may need other capabilities in the event nuclear 'deterrence fails', and these are where non-nuclear strike capabilities and missile defence capabilities would come into play.

Crouch illustrated such cases with an example of 'limited but effective defenses', which, along with other tools, could well help the US to 'dissuade' countries from investing in large numbers of ballistic missiles that might threaten the US or its allies and friends. According to Crouch, the US would be equipped with forces and capabilities, including a missile defence, to 'deter' an attack by a WMD against itself while at the same time to 'defeat' that attack, whether it were to come out of the Middle East or some other place, as a far more preferable option. The US missile defence capability would be to dissuade prospective challengers from developing those missiles, Crouch said. (US NPR 2002, Briefing.)

New Sources of Threat

Both active and passive defences, one of the three legs of a New Triad, are meant by Rumsfeld for providing a 'range of capabilities' for dissuasion. Such a range of military capabilities have usually been delineated on the basis of threat assessments and worst-case scenarios. Hence, room for intelligence manoeuvres to rationalise decisions on research, development, procurement, deployment, and employment of specific weapon systems.

Earlier than the NPR, US Deputy Secretary of Defense Paul Wolfowitz had named Iraq, North Korea [DPRK: Democratic People's Republic of Korea], Iran, Syria, and Libya as some of the countries that were 'less than five years' away from being capable of deploying missiles of increasing range and sophistication. (Wolfowitz 2001.)

An unclassified summary of a US National Intelligence Estimate (NIE) 2002 was made available to the public on 10 January 2002, right after the NPR. It sketches ballistic missile threat through 2015 as perceived by the US Intelligence Community (IC: CIA and 10 other agencies). Most IC agencies agree that 'in addition to the longstanding missile forces of Russia and China', the US most likely will face 'ICBM threats' from North Korea, Iran, and possibly Iraq before 2015. (One agency, presumably the Department of State, did not endorse the reference to Iran.)

Specifically, the summary remarks, North Korea said it would delay flight testing of its *Taepo Dong*-2 missile until 2003 on the condition that its negotiations with the US go on. Iraq is estimated to be capable of testing 'different ICBM concepts before 2015' if the UN prohibitions were eliminated in the next few years. But Iraq is unlikely to move in such a direction, according to most agencies. Iran could have a nuclear weapon by the end of the decade, while one agency observed it could take longer. Both Iraq and Iran are building missiles because of hostile relations with neighbouring countries. Israel is not mentioned, however.

The unclassified summary admits that the intelligence community has shifted its focus from missile threat to non-missile threat because of the September 11th incident. US territory, concludes the NIE 2002, is more likely to be attacked with WMD by countries or terrorist groups using such non-missile means as 'ships, trucks, airplanes or other means', a conclusion different from the earlier estimates. Reasons for

emphasising the means other than missiles include: trucks, planes, and boats are less expensive than missiles; non-missile means can covertly be developed and employed; such means can more accurately be used by non-state groups; and non-missile means could avoid US missile defence systems. (US NIE 2002; Pincus 2002a.) Still, ballistic missile defence constitutes an essential structure of Bush's neo-deterrence framework.

Nostalgia for Ballistic Missile Defence

For almost a decade since the end of the Cold War debates over the BMD and the ABM Treaty had largely been confined in Capital Hill. During the first term of the Clinton administration, Reagan's original Star Wars programme was put to an end and the BMD began to move towards theatre missile defence (TMD). As a result of the 1994 congressional elections, however, the right-led Republicans held in both houses. And the pendulum swung again to a national missile defence (NMD) while keeping options for the TMD open for further development. By the end of 1995 the Republicans had succeeded by legislation in mandating the development of a multi-site ground-based NMD system for deployment by 2003. (Fitzgerald 2000, 492.) Clinton administration's stance on BMD since then tended to deal with the problem by compromising with the Republicans while at the same time trying to evade being overruled by them.

A 1995 intelligence estimate held that except Russia and China, no country would develop or otherwise acquire a ballistic missile that could threaten the contiguous 48 states and Canada 'in the next 5 years' before 2010 at the earliest. Prior to the publication of the estimate, according to Michael Dobbs, the Clinton administration had leaked its details to congressional Democrats who used it to build up opposition to NMD. Republican proponents of NMD system, on the other hand, were highly critical of national intelligence forecasts during the Clinton years. Curt Weldon, chairperson of the House Armed Services Committee's subcommittee on military research and development took the offensive against the Democrats' arguments in Capitol Hill.

In addition to a series of events that prompted the shift in intelligence forecasts such as missile tests in North Korea and Iran, and nuclear tests by India and Pakistan, Dobbs reveals, there was a 'concerted campaign' by the Republican-dominated Congress, 'supported by Israel', designed to focus attention on the leakage of missile

technology from Russia to Iran. Congressional Republicans were working for an increased public support for a NMD system. Israel's then Prime Minister Benjamin Netanyahu feared that his country could soon become a target of Iranian missiles.

Congressional Republicans tried hard to influence the CIA to revise its 1995 estimate of the ballistic missile threat but could not manage to do so. Subsequently, however, they were successful in getting a blue-ribbon panel led by former CIA director Robert Gates appointed by Congress. The Gates panel reported to Congress in December 1996 that 'rogue' states would be unlikely to acquire ICBMs in the foreseeable future from the technological analysis.

Israel, according to Dobbs, made strong allegations to the Clinton administration that Russian missile experts were advising Iranians who were working on a upgraded *Scud* missile, *Shahab-3*, which the Israelis argued would be capable of attacking Tel Aviv from western Iran. The Clinton administration was sceptical of these allegations and did not want to jeopardise its relations with President Boris Yeltsin. However, the Israeli campaign was effective to the extent that a series of congressional hearings were held in 1997 and 1998. As a result, the Republican-dominated Congress passed in June 1998 the Iran Missile Proliferation Sanction Act, under which it was mandatory to impose sanctions on any country selling missile technology to Iran. Clinton vetoed the legislation. (Dobbs 2002.)

However, quite a different forecast was made in July 1998 by a congressionally appointed commission headed by Donald Rumsfeld that a 'rogue' state would be able to inflict a major destruction on the US 'within about five years' of a decision to develop an ICBM. The US might not be aware for several of those years, however, that such a decision had been made.³ The 'five years' was the estimate based on information from missile engineers at major US arms contractors. (*Ibid.*)

It has been known that the testing and deployment of NMD and even some versions of TMD would breach the ABM Treaty. The Clinton administration had negotiated with Moscow for a clarification of the ABM Treaty with a view to exempting some proposed TMD systems from being banned under the terms of the treaty. The result was a September 1997 agreement that exempted a Theatre High Altitude Area Defense (THAAD), a system for an 'upper-tier' defence designed to intercept missiles of relatively longer ranges high in the atmosphere. (Arms Control Reporter, 1997,

603.D.43.)

To be in a position to conduct testing and an eventual deployment of the NMD, however, without violating the treaty, a withdrawal from the ABM Treaty seemed to have been one option even during the Clinton administration. On 20 January 1999, for instance, Clinton's Secretary of Defense William Cohen said at a Pentagon's news briefing that if the Russians should refuse to amend the ABM Treaty the US could 'exercise its right to withdraw' from the treaty, although he added the US had an interest in maintaining the treaty. (*Ibid.*, 1999, 603.B-3.1.)

On the same occasion Cohen announced a major restructuring of its NMD programme. The Pentagon's chief said that two criteria must be satisfied for a deployment. Since the first criterion, a 'threat to warrant the deployment', would soon be met, the remaining criterion would be technological readiness, he said. The aim of the NMD would be to protect the entirety of the US. If this aim could not be met by deploying a system at 'only' the Grand Forks, North Dakota, multiple deployment sites might be necessary. Furthermore, Assistant Secretary of Defense for Strategy and Threat Reduction Ted Warner, who was with Cohen, confirmed that deterrence against 'rogue' states was not enough but that the continued 'central focus' of US deterrence was 'vis-à-vis Russia and China'. And some administration officials were even talking about an expanded NMD with a deployment of 200 interceptors in Alaska in 2005 and an additional 100 interceptors in a second site within a decade or so. (*Ibid.*, 603.B-3.1-3.4.)

The US House on 21 May 1999 adopted a bill on the National Missile Defense which committed the US to deploy as soon as technologically possible an effective National Missile Defense system capable of defending the US territory against limited ballistic missile attack. President Clinton signed the bill into law on 23 July 1999, although he said a final decision on deployment would be made in 2000 based on four criteria: technological readiness, the maturity of the ICBM threat by 'rogue' states, cost factors, and arms control considerations. (Cerniello 1999.)

Earlier NMD bills, introduced in March 1998, had been defeated first in May and for the second time in September 1998. But the release of the Rumsfeld report in July 1998, DPRK's *Taepo Dong* missile test, Secretary of Defense Cohen's announcement on the restructuring of the NMD programmer in January 1999 seemed to

have helped Congressional proponents of the NMD. The Clinton administration now had a NMD deployment plan by 2003, spending 3 years for designing and testing and additional 3 years for deployment -- 'three-plus-three' programme (*Arms Control Reporter*, 1999, 603.B-3.3-3.4.)

The 1999 decisions on the NMD were '[o]ne of the curious things', observes Frances Fitzgerald, because there had been very little public discussion of the BMD during the several years by then and hence 'no public pressure' either on the Clinton administration or Congress to make such a decision. (Fitzgerald 2000, 499.)

As it turned out, President Clinton had to announce his decision 'not to authorize deployment' of the NMD because the information available was still to be convincing enough to justify a decision otherwise in terms of technology and operational effectiveness of the entire system. In the same statement at Georgetown University on 1 September 2000, he also found it necessary to refer to arms control dimension of the problem. The NMD, if deployed, Clinton stated, would require the US either to adjust the ABM treaty or to withdraw from it because 'by its very words', NMD 'prohibits any national missile defense'. (Clinton 2000, 1991-2.) Lacking his own bold initiative towards nuclear disarmament, however, Clinton was unable to reconcile his conflicting positions -- largely unsuccessful negotiations with the Russians for a revision of the ABM Treaty to allow development and deployment of some ballistic missile defences, and repeated compromises with the NMD proponents to avoid being branded as 'weak on defence'. Immaturity in BMD technologies might have saved him from political quagmire.

The Logic of Ballistic Missile Defence

Ballistic missile defence (BMD) has usually meant to protect a second strike capabilities after absorbing a preemptive attack by the other side. The side which deploys BMDs might therefore be viewed by the other side as having capabilities and intention of launching preemptive strike against nuclear missile force of the other side (counterforce) in order to deprive it of its capabilities to respond.

Feasibility of BMD technologies has always been open to question even from the late 1950s, however. In 1967 Robert S. McNamara, Secretary of Defense under

President Johnson, admitted that the problem is not the money itself but the 'penetrability' of the proposed shield to protect American population. (McNamara 1968, 64.) He cautioned to distinguish an anti-ballistic missile (ABM) system designed to protect cities and ABM systems for other purposes including for the protection of US strategic offensive forces and a light system against the emerging nuclear capability of China. Late in 1967 the US decided to go forward with the Chinese-oriented ABM deployment. (*Ibid.*, 163-165.)

In 1969 President Richard Nixon switched from the Sentinel ABM programme of the Johnson administration to a Safeguard programme. He had to justify the decision on the grounds that the ABM programme under development was unable to defend American cities 'without an unacceptable loss of life' but that the only means to save lives was to 'prevent war' and the best prevention for war was to protect US 'deterrent', the missile sites. The Safeguard was to protect US nuclear 'deterrent' against not only any attack by China foreseen 'over the next 10 years' but also against irrational or accidental attack from the USSR. (Nixon 1969, 208-209.)

If the US and USSR had not engaged themselves in nuclear arms race, they need not have concluded the ABM treaty in 1972. The treaty was only a stopgap for the two nuclear superpowers to confirm and maintain their relations of mutual assured destruction, or MAD, and to refrain from developing and deploying, except at the agreed site(s), defensive systems designed to intercept the other side's ballistic missiles.

To President Reagan the state of MAD was humiliating in the sense that the US strategic nuclear force and the people were kept as hostage to nuclear missiles from the 'evil empire'. He wanted to get out of that condition unilaterally by a 'strategic revolution' capable of 'overcoming' deterrence. The means he embraced was the Strategic Defense Initiative (SDI) of rendering incoming nuclear missiles 'impotent and obsolete'. (Reagan 1983.) Reagan's SDI included technological developments for space-based X-ray lasers, particle beams, and electromagnetic rail guns, without however achieving feasible results but only costing over \$35 billion.⁴

The next candidate of BMD was senior Bush's Global Protection Against Limited Strikes (GPALS) to protect the US from an intentional missile attack by Third World countries or accidental Soviet missiles. (Fitzgerald 2000, 484.) The concept of GPALS included space-based deployment of a thousand of 'Brilliant Pebbles' (tiny

kinetic-energy weapons stuffed with miniaturised computers and high-technology sensors), coupled with five hundred to one thousand ground-based interceptors at the estimated cost of \$40 billion. (*Ibid.*, 481, 484.) In December 1991 at the time of the collapse of the USSR, the Strategic Defense Initiative Organisation (SDIO) was working on two deployment plans: a congressional deployment plan of one hundred ground-based BMD interceptors at a single site in five years (mandated by the Missile Defense Act of 1991, legislated by Sam Nunn-John Warner bill) plus GPALS. The two deployment plans were abandoned the next year, however. (*Ibid.*, 486-487.)

It has been known at least among those more or less informed of BMD that technologies for such a defence could be nullified by relatively cheap countermeasures.⁵ This is why realist proponents have not failed to caution that BMD's goals are limited.

President Bush laid special emphasis on the ICBM threat by 'rogue' states. (Bush 2001a.) According to one of his aides Paul Wolfowitz, the US BMD programme is 'not Star Wars' to build an impenetrable shield around the US. He cautioned that defences would 'not need to be 100% effective' to make a significant contribution to deterrence. BMD is 'just one element' of a new deterrence framework which includes several mutually-reinforcing layers of deterrence such as diplomacy, arms control, counter-terrorism, counter-proliferation and smaller but effective offensive nuclear forces. Denying that the programme was a 'scarecrow' defence, Wolfowitz stated that the BMD systems were intended to be expanded incrementally from initial deployment at the earliest possible moment to an 'increasingly sophisticated mix' of capabilities providing 'layered defenses' against all ranges of missiles at all stages of flight. (Wolfowitz 2001.) These points are also stated in the NPR 2002. The BMD is considered 'most effective' in 'layered' systems. The US is seeking such defences against attacks by 'small numbers of longer range missiles' and against attacks by 'larger number of short- and medium-range missiles'. (US NPR 2002, Excerpts, 25.) The Pentagon is exploring a wide range of alternative systems, including several near-term and mid-term options and improved versions of these options.⁶

President Bush has stated that the mission for BMD is to 'protect all 50 states', US deployed forces, and US friends and allies. It is admitted in the US NPR 2002, however, that the BMD 'can be less than 100-percent effective'. (*Ibid.*, 25.) A fact that BMD is, and will be, incapable of protecting human lives even if it may have a

capability to defend part of the military assets illustrates an irony of the dehumanised nuclear deterrence.

Why BMD projects have recurred in various versions from time to time? There have been 'dreamers' and 'schemers' of the missile defence, pointed out Bill Keller. The dreamers, most notably Ronald Reagan, envisaged a US shielded by the impermeable superdome. His advisors such as Robert McFarlane and Colin Powell, however, cynically saw the president's SDI as a 'pipe dream' but also as a useful bargaining chip with the Soviets. Current dreamers, Keller wrote, 'possibly including the president', junior George W. Bush, embrace the BMD 'at face value' as the means of protection against terrorists' ballistic missiles, or an accidental missile launch from Russia or a 'rogue' state's attack. Current schemers, on the other hand, Keller continued, fear that the US may be 'deter[red]' by any nation armed with a few nuclear arms from projecting superior conventional forces into the world in a vein similar to how the US did to the USSR in Germany during the Cold War. The 'real logic' of the BMD to these schemers, Keller pointed out, is not to defend but to 'protect American freedom to attack'. Keller quoted from Keith B. Payne, one of such long-time schemers, who defined this logic as making the stakes of 'power projection' compatible with the risks of power projection. (Keller 2002.)

Another interpretation of the logic of the BMD is made by Frances Fitzgerald. For many of the SDI proponents the goal was to establish 'U.S. control over space'. These experts saw that Star Wars technologies were much better suited to the 'offense' than to the defence, although this was taboo while the US-Soviet nuclear arms race continued. (Fitzgerald 2000, 490.) In the current BMD programme, too, she sees the real goal as acquiring 'weapons in space' which, 'if matured technologically', could be used for an 'offense' while also providing a 'defense' for the US. (*Ibid.*, 499.) In this connection, it should be borne in mind, Pentagon emphasises 'space control' on the ground that in future military competition the exploitation of space and the denial of the use of space to adversaries will be a 'key objective'. (US QDR 2001, 7.)

Both of the above observations seem to apply to Bush's BMD when seen in the light of his administration's nuclear weapons policy. We shall see Bush's proposed reductions in strategic nuclear warheads to examine it and the BMD in an overall context.

New Framework of Proposed Nuclear Reductions

Bush's new proposal for the reductions in US-Russian strategic nuclear warheads was made on 13 November 2001 on the occasion of his meeting with Russian President Putin. At a White House news conference with Putin at his side, Bush announced that the US would reduce its 'operationally deployed strategic nuclear warheads' to a range between 1,700 and 2,200 over the next decade by 2012. He justified this decision by saying that the current levels of US nuclear forces did not reflect post-Cold War strategic realities and that the new decision would be 'fully consistent with American security'. (Bush 2001b, 1652.)

At the same news conference, Russian President Putin stated that his dialogue with Bush had to do with the prospects of reaching a 'reliable and verifiable agreement' on further reductions in the US and Russian arms. Regarding Bush's decision to reduce strategic offensive weapons, the Russian president said that the Kremlin would try to 'respond in kind'. Putin added that the Russians were prepared to present all their agreements 'in a treaty form', including the issues of verification and control. (*Ibid.*, 1654-5.) Then, Bush said if he needed to write down an agreement 'on a piece of paper', he would be glad to do that. But his position was that since the US and Russia were in a new relationship based on 'trust and cooperation', they did not need an 'arms control agreement' or 'arms control negotiations' to reduce their weapons. (*Ibid.*, 1655-6.) Later at the Russian Embassy in Washington, DC, Putin reiterated that Russia would accept agreements 'only in treaty form', including the issues of verification and control. (De Young and Milbank 2001.) An ultimate form of bilateral accord(s) remains to be seen.

Pentagon's Crouch elaborated on Bush's proposed reductions at the briefing on the US NPR, stating that in addition to the 1,300 START accountable warheads that would come off the force, the US would be taking additional 'operationally deployed warheads' off existing ICBMs and SLBMs down to a level of about 3,800 by FY 2007. The US force size, he said, is not driven by an immediate contingency involving Russia, both politically and in terms of Russia's nuclear reductions. (US NPR 2002, Briefing.)

Bush's proposed number of reductions to a range of 1,700-2,200 is smaller by some 300 than the lower aggregate levels of 2,000-2,500 strategic nuclear warheads for each to be established by 31 December 2007, as included in the Clinton-Yeltsin 'Joint

Statement On Parameters On Future Reductions In Nuclear Forces' [STARTIII] (*Arms Control Reporter*, 1997, 614.D.25-26.) Here are tricks.

First, Bush talks about 'operationally deployed' strategic nuclear warheads. However, about 400 warheads are on weapons systems that are being 'overhauled' at any given time, pointed out Ivo Daalder and James Lindsay. Consequently, Bush's proposed reduction number is 'actually slightly higher' than the Clinton-Yeltsin levels of 2,000-2,500. The Bush administration has counted only operationally deployed nuclear warheads by changing the traditional rules for counting strategic warheads which included all deployed warheads as forces in the active inventory, irrespective of their actual conditions -- some of them were incapable of being delivered as they were in the process of being refurbished or inspected. (Daalder and Lindsay 2002, 4.)

Secondly, the operationally deployed strategic force is intended for dealing with immediate and unexpected contingencies. The US, Crouch admitted, would maintain the force structure and the warheads taken off these systems as part of the 'responsive force'. The responsive force capability is to 'augment' the operationally deployed force and will be 'additional warheads' that could be uploaded back onto that force if necessary. The responsive capability would reside in the 'active stockpile'. (US NPR 2002, Briefing.)

US nuclear warheads are stockpiled in two categories, 'active' and 'inactive'. The active stockpiles are 'ready-for-use' warheads with the 'latest warhead modifications', with tritium and other limited life components installed. The inactive stockpiles are without such modifications and with no limited life components installed. The size of the inactive stockpile is still to be fixed. At least 'seven types' of nuclear warheads are to be refurbished to extend their lives over the next two decades. (US NPR 2002, Excerpts, 31-32.)

No Destruction of Nuclear Warheads

The nuclear warheads removed from operational deployment are not necessarily to be destroyed. No US-USSR/Russian nuclear arms control agreements, for that matter, have obliged the parties to destroy warheads. Destruction is different from dismantlement.

When US officials and experts talk about 'destroying', according to John

Harvey of the Department of Energy (DoE), they talk basically about 'dismantling' the warheads, taking the components that are not needed and disposing of them, but making sure that they still can take good care of the safety and security of nuclear weapon materials from the warhead. (US NPR 2002, Briefing.)

Nuclear warheads involve the most sensitive technologies and both the US and Russia had not addressed problems of warhead destruction. Only in their March 1997 understandings Presidents Clinton and Yeltzin included in the agenda of future negotiations on a START III measures relating to the 'transparency of strategic nuclear warhead inventories' and the 'destruction of strategic nuclear warheads'. (*Arms Control Reporter*, 1997, 614.D.25.) Since then neither side seems to have taken any concrete initiative towards this end.

Regarding the Comprehensive Nuclear Test Ban Treaty (CTBT), Pentagon's Crouch said, the US will continue to oppose its ratification, adding that it will also continue to adhere to a testing moratorium. However, in connection with the time period necessary for preparation to conduct a nuclear test, Crouch stated, the NPR recommends to shorten the time than the current 2-3 years (24 to 36 months) from a decision. The DoE feels confident, added John Harvey, that it can do the requirements for the Stockpile Stewardship Program without nuclear testing. Since there are no guarantees, he commented, the US needs to retain, as part of stockpile stewardship, an ability to carry out a test. (US NPR 2002, Briefing.) The DoD and the National Nuclear Safety Administration (NNSA) are to improve 'test scenarios' with a view to determining, implementing, and sustaining the 'optimum test readiness time'. (US NPR 2002, Excerpts, 36.) The need is emphasised to maintain readiness to 'resume underground nuclear testing' if required. (*Ibid.*, 30.)

Asked whether the US was not going to try to develop 'smaller nuclear weapons, earth-penetrators', Crouch's reply was not definitively negative. He simply said there were 'no recommendations' in the NPR about developing new nuclear weapons but added that the US was trying to look at a 'number of initiatives', including modifying an existing weapon, to give it greater capability against hard targets and deeply-buried targets. (US NPR 2002, Briefing.)

Crouch's remarks were later clarified by retired General John Gordon, head of the NNSA, who together with Crouch co-chaired NPR works. In a testimony before the Senate Armed Services Committee on 19 February 2002, Gordon stated, the Nuclear Weapons Council (with officials from the Pentagon and DoE as members) had ordered a three-year study into developing a nuclear-tipped, earth-penetrating weapon capable of destroying hardened underground targets, and that the three nuclear weapons laboratories now had 'advanced warhead concept teams' working on new warheads and warhead modifications. (Pincus 2002b.)

In fact, a group of politicians, military officials, and leaders of US nuclear weapon laboratories have argued for the development of a new generation of precision low-yield nuclear weapons, wrote Robert W. Nelson. They have suggested that such weapons could be used in conventional conflicts with Third world countries. The one clear scenario Nelson found is an intended use of new nuclear weapons as a 'substitute for conventional weapons' for attacking deeply buried targets. Such uses would cause 'massive radioactive contamination', Nelson pointed out. (Nelson 2001, 1, 5.) Actually, the US nuclear posture review emphasises the need to develop new capabilities to destroy 'hard and deeply buried targets' (HDBT), to find and attack 'mobile and relocatable targets', to defeat chemical or biological agents (agent defeat), and to limit 'collateral' damage. (US NPR 2002, Excerpts, 46.)

Crouch referred to a 'new framework' the US would be creating to achieve the proposed reductions in 'operationally deployed strategic nuclear warheads', without waiting for 'Cold War arms control treaties'. Instead, the new framework is premised on other kinds of US capabilities in the future, i.e. greater emphasis both on missile defence capabilities and on the development of advanced conventional capabilities, he noted. (US NPR 2002, Briefing.)

The new US nuclear posture involves maintenance of nuclear arsenals in constantly updated and improved operational condition, reductions in operationally deployed warheads to a lower level calculated to be higher enough to sustain its unilateral nuclear deterrent, developing and deploying BMD, and integrating nuclear weapons with conventional weapons systems under a more synthesised system of command, control, communication, intelligence, and adaptive planning.

The previous US Nuclear Posture Review under the Clinton administration was characterised by then Secretary of Defense William Perry as achieving proper 'balance' between 'leading' in further reductions in nuclear weapons and 'hedging' against a

reversal of reform in Russia. (US NPR 1994.) Naturally, what guided US nuclear weapons policy were much more 'hedges' than 'leading'. According to then US Deputy Secretary of Defense John Deutch who testified on US NPR 1994 before a meeting of the House Foreign Affairs committee in October 1994, the authors of the secret Pentagon document judged that deeper unilateral reductions in strategic nuclear warheads would be 'imprudent' and that actions be taken to ensure that the US could 'reconstitute' its retired nuclear warheads if it would need to. One of the reasons for the two judgements was the 'uncertain future' of the rapid political and economic change in Russia. (Deutch 1994.) The US 'hedge' was conceptualised late in the 1980s and was adopted as the key guideline for the 1994 Nuclear Posture Review. (Kristensen 2001, 8-9.) The 'hedge' in the form of nuclear warheads retired from active service but kept in reserve as part of the responsive force is one of the conspicuous features in the 2002 US NPR, too.

The US is estimated to be possessing some 9,376 'operational' nuclear warheads (including tactical weapons) while an estimated number of the Russian warheads is 9,196, in addition to 'non-operational' warheads (including tactical weapons), both in active and inactive stockpiles, which are estimated at 5,000 and 13,500 respectively for the US and Russia, as of January 2001. (Kristensen 2001, 9.)

Changes in the US Nuclear Weapons Employment Policy

The essence of US nuclear weapons policy resides in the employment plan of its weapons. The only country today that is technically in a position to strike the US with nuclear arms is Russia, whether accidentally or preemptively or in retaliation. The US nuclear war plan is still formulated with this fact as the fundamental premise. If Russia is no longer an enemy of the US, then what about the existing nuclear war plan against Russia? Would the US seek to discard its top-secret Single Integrated Operational Plan (SIOP) by asking Russia to act together towards the same end?

SIOP's 'deliberate' executable war plans are for anticipated contingencies. At present the time required to work out a plan to strike one specific new target is 12-48 hours. SIOP's planning method in the near future is intended to be replaced by 'adaptive' planning which is expected to formulate war plans flexibly 'in time

critical-situations'. (US NPR 2002, Excerpts, 29.)8

Requirements for the employment capabilities of nuclear weapons are categorised as immediate, potential or unexpected. 'Immediate' contingencies include ongoing dangers such as an attack by Iraq on Israel or its neighbours, or an attack by DPRK on the Republic of Korea, or an armed conflict over the status of Taiwan. 'Potential' contingencies involve 'plausible' dangers including the emergence of an adversarial military coalition against the US. And 'unexpected' contingencies include unforeseen developments such as a 'sudden regime change' with existing nuclear arms coming under the control of a hostile leadership. (*Ibid.*, 16.)

In 1997 President Clinton signed a new presidential decision directive (PDD) with a major reformulation of US nuclear war planning. At that time the revised target list of US strategic missiles on immediate alert, mostly in Russia and some in China, grew from about 2,500 in 1995 to roughly 3,000, while hundreds of secondary targets are in China, DPRK, Iran, and Iraq. (Smith 1997; Blair 2000.) In 2002 the DPRK, Iran, Iraq, and newly added Libya and Syria are categorised as involved in all three contingencies. (US NPR 2002, Excerpts, 16.) China could be involved in an immediate or potential category. (*Ibid.*, 16-17.) A Russian contingency is 'plausible' but is 'not expected'. To adjust immediate nuclear force requirements involving Russia with the recognition of the changed relationship with that country is a 'critical step' away from the Cold War balance of terror policy, the NPR said. However, Russia's nuclear forces and programmes still remain a 'concern'. If US relations with Russia 'significantly worsen' in the future, the US may need to revise its nuclear force levels and posture. (*Ibid.*, 17.)

It is presumed that some 2,200 Russian targets are being held at risk today, including 1,100 nuclear force targets, 160 leadership targets, 500 conventional force targets, and 500 war-supporting industry targets. (Daalder and Lindsay 2002, 5.) The US nuclear arsenals would include some 2,200 operationally deployed nuclear warheads even after Bush's proposed reductions have been made, in addition to thousands of additional warheads in the responsive force. Then, if Russia is 'not expected' to be involved in a nuclear contingency, these arsenals should be both too large and too destructive to be allocated to the presumed targets in China, DPRK, Iran, Iraq, Libya, and Syria. It could be assumed that the US arsenals are in anticipation of a Russian

contingency as a 'hedge' and that a new generation of nuclear weapons is being urged for development to be prepared for contingencies involving the rest of target countries.

The US Strategic Command (STRATCOM) has been ordered to draft 'contingency plans' for the use of nuclear weapons under three possible circumstances: against targets able to withstand non-nuclear attack; in retaliation to the attack by nuclear, biological, or chemical weapons; and in the event of surprising military development. (Arkin 2002.)

Bush administration's policy on nuclear weapons remains unchanged in its basic concept from the strategic thinking during the Cold War era. Some vocal changes seem to have been made, however. Bush's new policy has been formulated in a situation different from the Cold War era in the sense that Russia, the successor state of the USSR, is no longer a peer competitor in new arms drive. The Bush administration is trying to surpass Clinton administration's stance of 'leading' in reduction of strategic nuclear warheads by setting down rules unilaterally, with 'hedging' by a New Triad as a fresh starting point towards an unrivalled superiority. The US aim seems to be in the ascendancy over the Russians not only in nuclear weaponry but in advanced conventional areas, on the one hand, while minimising potential threat from Russian nuclear weapons capabilities and neutralising such capabilities, on the other. ⁹

New Configuration and 'National Security' Syndrome

In spite of rhetorical statements often exchanged between leaders of the former Cold War rivals that they are no longer enemies, not only nuclear war preparedness remains basically unchanged but a new configuration of power relations is being formed in the processes of managing the legacies of the Cold War confrontation.

In the wake of the September 11th incident in 2001, the Bush administration has succeeded in forming a new coalition in its war against terrorism by mustering support not only from its Western allies but also from those countries that had not had so smooth relations with the US, including Russia and China, and Pakistan and India that had been under US sanctions in the wake of their 1998 nuclear tests. By a geopolitical strategy the US has enticed leaders of some former Soviet republics in Central Asia to provide forward deployment bases for the war in Afghanistan in return

for economic assistance for these leaders who should have been branded as 'unsavoury dictators' in the traditional criteria of 'democracy'.

The major players of adversarial relations have changed seemingly from the Cold War era. Unchanged is the continued search for sources of a threat or threats to justify new arms buildup and military measures in the name of 'national security'. During the Cold War, the ideological rationale of the US-Soviet confrontation was the struggle between 'Communist totalitarianism' and 'US imperialism', a struggle propped by respective alliances but basically driven by the traditional concept of 'national security'. The end of the Cold War stripped the former adversaries of their ideological cover, and thriving now is a syndrome of jingoistic 'national security' justified in terms of myopic 'national interests' which their leaders define from time to time often in terms of geopolitical strategies. Military power remains the main thrust of foreign policy to a varying degree depending on differences of affordable technological and economic resources.¹⁰

Epilogue

As long as the US continues to go ahead with its current nuclear weapons policy with a view to remaining the unrivalled military power, there is little reason to expect that Russia's response will be simple acquiescence to Washington's assertiveness. Since the two nuclear giants are not moving towards a decisive nuclear disarmament, the second-tier and unacknowledged NWSs will have no incentive to take any new initiative towards that end. China is observed to be adding to its ICBM capabilities and developing an SSBN fleet. The UK joined the US in conducting a sub-critical nuclear test in Nevada in February 2002. India and Pakistan will continue to strengthen their status as *de facto* nuclear weapon states. So will Israel whose nuclear weapon status has remained unchecked by its US partner.

There are no ready-made panaceas likely to bring about an easy breakthrough out of this impasse. Instead, there should be a series of initiatives that could usher in a new phase of breakthroughs in nuclear disarmament. Such initiatives may be taken by all conceivable actors, states and NGOs, in the form of criticisms, new ideas, proposals, recommendations, and actions.

Initial suggestions for moves that culminated in both bilateral and multilateral agreements and measures such as the Partial Nuclear Test Ban Treaty (PTBT), Nuclear Non-Proliferation Treaty, nuclear weapons-free zones (NWFZs), INF treaty, even during the Cold War, were all made by individuals, experts, peace movements, and concerned states. The end of the Cold War was followed by START I,¹¹ Bush-Gorbachev exchange of unilateral steps removing tactical nuclear arms from surface ships, additional NWFZs, and the still to be effective CTBT.

Certainly, governments of the NWSs only took up those problems they had found manageable and cooked up end products to their liking. At least, however, they had to respond to outside initiatives when they sensed they better had to do so in view of domestic political situation and international relations.

In the light of the facts that the US holds the key to moves towards nuclear disarmament, and that the US domestic politics is very much tainted by jingoistic nationalism especially in the wake of the September 11th incident, it may for some time be domestic situational factors such as economic difficulties in continuing high level of military spending and technological hurdles in the development of BMD that can help domestic public opinion show discontent with the administration's nuclear weapons policy. Nevertheless, such processes can be facilitated through the influences exerted upon the US administration and public opinion by the wider international relations involving not only governments but NGOs, as was the case in the late years of the Reagan administration.

Nevertheless, even leading proponents of nuclear arms control in the US have not gone far enough to advocate total nuclear disarmament. They have either remained ambiguous about the final goal or argued for the reduction up to some 1,000 or so nuclear warheads -- a position still retaining 'nuclear deterrent' even if at a lower level. ¹² The global situation has changed and the concept of nuclear deterrence is in the minority, as evidenced by the fact that the five NWSs had to reaffirm in New York on 1 May 2000 their commitment to the fulfillment of all their nuclear disarmament obligations under the NPT. (*Arms Control Reporter*, 2000, 602.D.26-29.)

It is proper here to recall that growing criticisms of the Cold War by international public opinion, including citizens, experts, and peace movements, bore a theoretical fruit in the Palme Commission's findings, one of which gives expression to a

common-sense truth that the goal of arms control and disarmament is the pursuit of 'common gains, not unilateral advantage'. The current 'expedient of deterrence through armaments', it continues, must be replaced by a doctrine of 'common security'. (Palme Commission 1982, 139.) At a time when 'national security' syndrome is thriving, the basic concept of 'common security' should be resurrected and enriched for the common cause of global human security.

Notes

¹ The traditional 'smaller triad' of strategic forces -- Intercontinental Ballistic Missiles (ICBMs), bombers, and Submarine-launched Ballistic Missiles (SLBMs) -- is 'embedded' in the new triad, according to US Assistant Secretary of Defense for International Security Policy J. D. Crouch who gave a special briefing on the NPR. (US NPR 2002, Briefing.)

² US National Intelligence Estimate 2002, classified, is the 4th annual report, and was sent to the

Senate Select Committee on Intelligence.

³ The report of the Commission To Assess the Ballistic Missile Threat to the United States (known as the Rumsfeld Commission) was released on 15 July 1998. (*Arms Control Reporter*, 1998, 706.B.271-272.)

⁴ For Reagan's SDI and its fundamental political, strategic, and technological contradictions, see Tachibana 1989, esp. 304-325. Fitzgerald 2000 is an excellent work on Reagan's SDI and its follow-ons.

⁵ Lewis, Postol, and Pike 1999 elucidate why BMD would not function effectively.

Only the PAC-3 (Army's upgraded Patriot) systems are under deployment since 1991. Near-term and mid-term options (2003-2008) include: a single Airborne Laser for 'boost-phase' intercepts for limited operations against missiles of all ranges; a 'rudimentary ground-based midcourse' system with a small number of interceptors against 'long-range' missiles; and a 'sea-based' Aegis system for a 'rudimentary midcourse' capability against 'short to medium-range' missiles. Deployment of operational capabilities beginning in the 2006-2008 period include: 2-3 Airborne Laser aircraft; additional ground-based midcourse sites; 4 sea-based midcourse ships; and terminal systems including PAC-3 and THAAD. (US NPR 2002, Excerpts, 26.) In January 2002, the Pentagon reorganised the Ballistic Missile Defense Organization (BMDO) into the Missile Defense Agency (MDA). Reagan's Strategic Defense Initiative Organization (SDIO) had been changed to BMDO by Clinton.

John Harvey, Director, Department of Energy's Office of Planning, Assessment and Analysis, who was with Crouch at the same Pentagon briefing on the NPR, explained that the 'limited-life components' that go into a nuclear warheads, such as tritium, neutron generators, things that live for a relatively short period of time, are removed from the warhead, and when the weapon is transitioned to the active stockpile from the inactive, they are reinstalled in the warhead. (US NPR 2002, Briefing.)

⁸ In March 2002 the US Nuclear Posture Review Report leaked out. Articles first published then include: Richter 2002; Arkin 2002; and Gordon 2002.

⁹ The Bush administration has decided to continue funding the Cooperative Threat Reduction (CTR) Program, initiated by the Soviet Nuclear Threat Reduction Act of 1991 (sponsored by Senators Sam Nunn and Richard Lugar) to facilitate the transportation, storage, safeguarding, and destruction of nuclear and other weapons in the Soviet Union. For the initial period of the Nunn-Lugar programme, see Lockwood 1993, 566-571. Bush administration officials had threatened to reduce funding or eliminate the programme by criticising it as ill conceived and expensive. The decision seems to confirm the administration's aim to help neutralise Russian

- nuclear capabilities and, in light of the September 11th incident, to prevent possible smuggling of nuclear-related materials out of Russia.
- The US Congress in December 2001 finally authorised military spending of \$343.3 billion for FY2002, the highest increase since the Reagan era. The Department of Defense's budget request for FY2003 is about \$380 billion. Russia's military spending is estimated at about 1/60 of the US.
- On 5 December 2001, seven years after the 1991 START I treaty went into force, the US and Russia completed treaty-compliant reductions of their strategic nuclear arsenals down to the ceiling of deployed strategic warheads at about 6,000 each for the US and Russia. The other START I parties under a May 1992 agreement -- Belarus, Kazakhstan, and Ukraine -- complied with their treaty obligations much earlier by transferring all their nuclear warheads to Russia and subsequently by destroying strategic delivery vehicles. As the treaty does not oblige the parties to destroy nuclear warheads removed from the means of delivery, the number of strategic and tactical nuclear warheads retained by the US is estimated at more than 5,000 while the relevant number retained by Russia is estimated at 13,000. In addition, the US deploys about 200-400 nuclear gravity bombs in Europe and keeps over 1,000 additional tactical nuclear arms in operational condition, while Russia, too, is regarded as deploying roughly 3,500 tactical nuclear arms. (Bleek 2002, 33.)
- For a review of suggestions and pronouncements by some US non-governmental research institutions advocating nuclear arms control, see Tachibana 1998.

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