The Big Question-

Will the

Missile Defence System

enhance

US national security?

By Lt Cdr D I Burns Royal Navy

On 1 September 2000, President Clinton announced his decision not to authorize deployment of a national missile defence (NMD) system: 'I simply cannot conclude, with the information that I have available today, that we have enough confidence in the technology, and the operational effectiveness of the entire NMD system, to move forward to deployment.' His decision followed close on the heels of the failure of the third interception test of the NMD initial capability. NATO Secretary-General Lord Robertson commented, 'The decision … to continue testing and development of a limited national missile defence system, while reserving judgement on eventual deployment, appears to be a prudent course of action that balances the many factors involved in this issue.'[1]

In a briefing later that day, National Security Advisor, Samuel R. Berger, reiterated the four criteria against which the Clinton Administration had made its decision: the nature of the threat; the cost; the technical feasibility of a system and the overall impact on national security. Crucially, Berger went on to say, 'The fourth criterion, national security considerations, including arms control, in effect addresses the largest question – whether NMD in the context of the overall security environment will enhance our overall security or diminish it.'

This paper examines that pivotal question in the light of the decision to defer deployment of NMD. It will examine three key elements: what can be deduced about the relevance of ballistic missile defences from experience during the Cold War; how have current NMD proposals developed in parallel with US national security strategy; and whether deployment of a national ballistic missile defence system would represent a coherent and positive contribution to that national security strategy. It will not embark on an examination of either the technology involved in missile defence or the ballistic missile threat it is intended to

meet. Neither of these is relevant, as it can be assumed that some form of defence will be technically feasible, and that increasingly sophisticated ballistic missiles will continue to proliferate, at least for the foreseeable future.

…1956 saw the Soviets commence construction of a test site in Kazakhstan, while the first US Anti-Ballistic Missile (ABM) project, Nike-Zeus, formed in the same year

One of the remarkable features of the debate on ballistic missile defence (BMD) is its durability. Trends over the past 40 years are important in examining how ballistic missile defences have previously been developed, justified and related to the prevailing security environment. These experiences hold some important lessons for current developments in NMD.

The desire to defend against ballistic missiles is a natural reaction and one not confined historically to the US or Soviet Union. During debate on the 1957 Sandys Defence Review, one British MP pleaded for greater attention to such protection, 'Has not considerable work been done already on the possibility of using guided missiles with atomic warheads in a defensive role to destroy attacking missiles? During the next decade this may come, utterly fantastic as such a thing seems today.' [2] Work was indeed well underway; 1956 saw the Soviets commence construction of a test site in Kazakhstan,[3] while the first US Anti-Ballistic Missile (ABM) project, Nike-Zeus, formed in the same year.[4]

In 1959 Eisenhower blocked deployment of Nike-Zeus on the grounds of technical inadequacy. Deployment was blocked again in April 1961. Robert McNamara provided testimony to the Senate Armed Services Committee on Nike-Zeus deployment that would have served well in Clinton's recent NMD announcement, 'There is still considerable uncertainty as to its technical feasibility and, even if successfully developed, there are many serious operating problems yet to be solved.'[5] But research and development on ABM continued, evolving into the Nike-X system.

In September 1967, Johnson decided to press ahead with a 'thin' implementation of Nike-X to protect US cities, a system to be known as Sentinel. The logic for deployment of Sentinel was virtually indistinguishable from current NMD thinking: the primary justification was the need to counter an emerging but limited threat (in this case the Chinese ICBM force), while the associated capability against accidental or rogue ICBM attack was an additional benefit. Sentinel's impact on strategic deterrence was predicted to be limited. McNamara had consistently argued that the USSR would counter such a deployment by increasing force levels and the result would be 'to increase greatly our respective defence expenditures, without any real gain in security for either side.'[6] This expectation presaged neatly the idea of forcing debilitating economic penalties on an opponent by pursuing such defences and its effects were later to become apparent as Reagan pursued the Strategic Defence Initiative.[7]

…McNamara, who harboured considerable doubts about the system, was forced into a deployment decision by substantial pressure from an alliance of military, industry and Congressional groups…

Why the US should have been concerned to protect against a limited attack at this time is by no means obvious. Clearly there was a desire to maintain equivalence with the Soviets in the ABM field, but it is difficult to imagine that the US would have achieved much by actually deploying a system that did little to counter the Soviet threat. Somewhat more convincing is the argument that McNamara, who harboured considerable doubts about the system, was forced into a deployment decision by substantial pressure from an alliance of military, industry and Congressional groups; in effect the military-industrial complex.[8] Current proposals for NMD constitute a relatively small percentage of the US defence budget but it would be wrong to underestimate the continuing influence of this lobby in ensuring its continuation. As Greenwood has observed, 'Large organisations have been created that owe their existence solely to their ability to invent or design new weapons and sell them to political decision makers. These organisations include not only the development commands of the services but also some of the largest of the nation's corporations who together employ millions of workers and represent a powerful political force.'[9] The latest NMD contract, worth $6bn, was awarded to the Boeing Company, Space and Communications Group, the prime contractor and lead system integrator, on 22 December 2000. If all options are exercised the contract has a potential value of $13bn.[10] Even though this represents only 1% of the defence budget over the next 6 years, NMD stakes remain high.

On inheriting the Sentinel issue, Nixon reaffirmed the deployment decision but completely changed the intent as well as the name of the proposed system. Now re-christened Safeguard, the system was intended to preserve a US second-strike capability by protecting ICBM sites against pre-emptive attack. Nixon would like to have deployed a more capable system but the technical realities of the situation were summed up in his March 1969 deployment announcement;

> *Although every instinct motivates me to provide the American people with complete protection against a major nuclear attack, it is not now within our power to do so. The heaviest defence system we considered, one designed to protect our major cities, still could not prevent a catastrophic level of US fatalities from a deliberate all-out Soviet attack.*[11]

Nixon's reference to an instinctive desire to protect the US population highlights another enduring theme in the justification of ABM defences, popular demand, one that is of less importance than successive generations of politicians have implied

Nixon's reference to an instinctive desire to protect the US population highlights another enduring theme in the justification of ABM defences: popular demand, one that is of less importance than successive generations of politicians have implied. At the time of Nixon's announcement, a Gallup poll showed only 25% were in favour of installing Safeguard, while 15% were against and 60% had no opinion on the matter.[12] Latest polls show opinion evenly divided on NMD. A Gallup Poll in February 2001 showed 44% in favour of development, 20% opposed and 36% undecided, while the previous April an ABC poll found opponents in the ascendancy by a margin of 53% to

44%.[13] Of course, opinion polls will show variation in response depending on the nature of the question asked. Another recent poll for CBS News and the New York Times initially found a staggering 58% of respondents thought the US already had a missile defence system.[14] Once people understood that this was not the case, and that there were doubts over the technical feasibility of such a system, the approval rating dropped to 25%.[15] Public opinion has never been sufficiently strong to drive NMD deployment by itself but neither is it ever likely to be the cause of NMD's demise.

At the time of Nixon's Safeguard announcement, construction of an ABM system around Moscow was already underway

At the time of Nixon's Safeguard announcement, construction of an ABM system around Moscow was already underway. Work on the A35 (or ABM-1) system had begun in 1966 [16] but by 1969 it was apparent that it would be inadequate to provide protection against anything but a limited Chinese strike.[17] Despite modernisation over the next 30 years, the Russian system remains, at best, capable of countering only the same limited threat. In both East and West, a pattern of lagging technology struggling to find a justification in an evolving strategic environment was firmly established.

Originally configured for area defence of US cities, Safeguard was now tasked with the point defence of Minuteman ICBM silos, for which it was less than ideally suited. Even before Safeguard's deployment the US Army had realised this weakness and was planning to reduce the system's readiness while developing a more suitable successor, the Site Defense system.[18] Against the background of détente, the ABM Treaty, Soviet deployment of Multiple Independent Re-entry Vehicles (MIRVs) and Safeguard's technical inadequacy, Congress could stomach no more spending and the House voted to deactivate Safeguard on 2 October 1975, the day after it had been declared operational.[19]

Both the US and the Soviet Union were already fully aware of the limitations of ABM systems and their limited impact in the event of nuclear conflict. These systems had become little more than bargaining counters during the SALT 1 talks. Eventually, the talks produced the 1972 ABM Treaty, the only durable and legally binding instrument of SALT 1.[20] This Treaty continues to limit signatories to a single ABM system of no more than 100 interceptors and incapable of defending their entire territory.

In the late 1970's attention shifted to the Soviet first strike advantage that was perceived to be developing with their deployment of fourth generation ICBMs.[21] Concurrently, the upgrade to US land based ICBMs, the MX program, had become mired in the issue of survivability. This gave the US ballistic missile defence research and development program the oxygen it needed to stay alive, principally in developing the Low Altitude Defense System intended to protect MX missile sites. Safeguard had fallen victim to a lack of consensus in Congress that left it vulnerable to political attack [22] but now the deterioration of détente re-established the conditions for consideration of BMD.

This period illustrates another recurring theme in missile defence. Changes in the strategic environment naturally drive reassessment of US strategic defences. Successive administrations have hedged their bets by never completely abandoning

ballistic missile defence research. Thus each time such a change has occurred a new system has quickly been proposed which fulfils some essential function in the new strategic climate.

The Strategic Defence Initiative (SDI) was unveiled on 23 March 1983 and was justified by the need to 'save lives rather than to avenge them',[23] which places it in the same category as current NMD proposals and Sentinel. In fact, the continuing failure to produce an adequate solution to the MX survivability problem also played a crucial part in convincing Reagan that a radical alternative strategy had to be pursued in order to put the Soviets on the back foot.[24] A key feature of the initial success of SDI was the wide acceptance it received in the US, a consensus absent in contemporary debate. However, the proposals received an almost uniformly negative reception in Europe, where allies had not been consulted. The arguments levelled against SDI were almost identical to those fielded against NMD today.[25] In the US, few voices doubted the immediacy or the magnitude of the Soviet threat. SDI was seen as a fresh approach to the arms race that did not involve acquiescence to the inevitability of strategic force escalation. But, as with present NMD proposals, SDI required an enemy sufficiently threatening to warrant the effort expended on the project but not substantial enough to overwhelm it.[26] The Soviet threat was anything but insubstantial and this inevitably led to the logic of pursuing reductions in strategic nuclear forces. A twin pronged attack followed, focussing US economic and technological superiority on SDI and coupling this with substantial disarmament efforts. Just as McNamara had unwittingly predicted, the costs of this competition were beyond the Soviet Union and played a large part in its reform and demise. The defences envisaged but never deployed under SDI should therefore be seen as a means rather than an end. It was arms reduction that emerged the real winner from SDI.

Would deployment of NMD have the same effect against regional challengers armed with ballistic missiles? Probably not. Such states have nothing to lose by the acquisition of ballistic missiles and they do not seek to challenge the US on an equal footing or develop missile defences of their own. For the Soviet Union, SDI was as much a political and economic competition as one of technology. Regional powers have no such concerns. They merely seek to complicate US decision making with the threat of unacceptable damage in the event of regional intervention as will be discussed.

A key feature of the initial success of SDI was the wide acceptance it received in the US, a consensus absent in contemporary debate

Another feature of SDI was that the Reagan administration had only just begun wrestling with the requirement to comply with the ABM Treaty and opposition to the militarisation of space. The price of eventual support for SDI from Margaret Thatcher, agreed with Reagan in December 1984, was a four-point list that included the need to ensure SDI was accommodated within a renegotiated ABM Treaty and negotiations for the reduction of offensive nuclear forces.[27] In the face of stiff Soviet opposition to testing and deployment of SDI, Reagan

became increasingly frustrated. ‘Don’t ask the Soviets. Tell them!’ he is reported as saying in 1987 during consideration of the potential Soviet response to a unilateral US interpretation of the ABM Treaty.[28] Such an ultimatum was never issued and the problem of the ABM Treaty remained fudged at the end of the Cold War. The strategic environment has now changed dramatically but experience with SDI gives at least some indication that the US will go a long way to ensure that it accommodates the opinions of its allies and its treaty obligations in the matter of BMD.

The history of US ballistic missile defences can be seen to have four unbroken strands. First, the US has always been engaged in developing some form of ABM defence with the option of deployment. Research and development have been active but have never provided options that could be implemented quickly enough to respond to changing strategic circumstances, principally due to the complexity of the technology involved. Second, deployment options have consistently been brought out of the cupboard and dusted off for examination on each occasion that the strategic environment has altered. Third, where the option to deploy has been taken up or seriously considered, the final justification has either been at odds with the strategic environment or deployment has simply been overtaken by events. Missile defence has consistently failed to contribute to national security in the manner envisaged. Consequently, ballistic missile defence has served principally as an instrument in arms negotiation. Finally, the ABM Treaty has shown remarkable durability because changes in the strategic environment have outstripped efforts to renegotiate it. Successive administrations have been reluctant to take the alternative step of abrogating the Treaty.

Despite the lessons of history, BMD has shown remarkable resilience in the new security environment. In order to examine whether such defences are a sensible response to that environment it is necessary to examine how NMD has grown up alongside new concepts of national security.

The Cold War was characterised by the rigid nature of its strategic framework, one in which the major issue was the interaction of the two principal actors. Freedman has observed that during this time ‘the sense of dynamic interaction between the political context and the instruments of power that is at the heart of strategy seeped away because it was only experienced spasmodically at the margins of the Cold War.’ [29] The post-Cold War period immediately highlighted this weakness in strategic thought. Cold War concepts of strategy had easily been encapsulated in simple public statements of intent, such as those expressed in Truman’s doctrine of Containment, Kennedy’s inauguration speech and Reagan’s ‘evil empire’ address.[30] The simplicity of the Cold War architecture and the associated paralysis of strategic thought were not conducive to debate over grand strategy. This failing is neatly summarised in Snider’s analysis of motivation for the development of US security strategy in the immediate post-Cold War era:

Cold War concepts of strategy had easily been encapsulated in simple public statements of intent, such as those expressed in Truman’s doctrine of Containment, Kennedy’s inauguration speech and Reagan’s ‘evil empire’ address

The impact of the Gulf War was to propel ballistic missile defence back to the top of the security agenda. Its influence can be seen in the events between Bush's keynote address on security in Aspen, Colorado, delivered the day after the Iraqi invasion…

Few in Congress at the time doubted that there existed a grand strategy. The nation had been following 'containment' in one form or another for over 40 years. What they doubted, or disagreed with, was its focus in terms of values, interests and objectives; its coherence in terms of relating means to ends; its integration in terms of the elements of power; and its time *horizon. In theory, at least to the reformers, a clearly written strategy would serve to inform the Congress better on the need for resources to execute the strategy.*[31]

As a result, the Goldwater-Nichols Department of Defense Reorganisation Act of 1986 required an annual written articulation of grand strategy from the President. Three reports were submitted to Congress prior to 1991 but only one, the 1990 report, attempted to examine the fundamental nature of strategic change. Its production was hindered by the demands made on personnel by the turbulent international environment at the time. The results have been described as 'schizophrenic, with the reading of the environment in the front at variance with the prescribed response in the back'.[32] It is therefore unsurprising that the US emerged from the Cold War in an unassailable position as the sole Superpower but without a fully formed idea of how to wield the instruments of power in the new strategic context. These were conditions of uncertainty in which missile defence options had previously been re-examined.

Just as the Bush administration was getting to grips with the task of defining a new direction for US grand strategy, and at a time when its military freedom of action was arguably at a peak, Saddam Hussein invaded Kuwait. The impact of the Gulf War was to propel ballistic missile defence back to the top of the security agenda. Its influence can be seen in the events between Bush's keynote address on security in Aspen, Colorado,[33] delivered the day after the Iraqi invasion, and the National Security Strategy [34] that was published one year later.

In Aspen, NMD merited a single paragraph, promising to 'push forward the great promise of SDI'. SDI was under review at the time. Ambassador Cooper's classified report on the programme had been delivered in March and concluded that SDI's initial goals were now untenable, both technologically and in light of the end of the Cold War. Cooper noted that: although the Soviet ICBM threat still existed the chances of a first strike were greatly reduced; if there were a Soviet attack it was more likely to be a 'rogue' commander or accidental launch; the spread of theatre ballistic missiles would clearly endanger US forces overseas; and there was a small but growing number of third world states that might eventually possess

The sight of Patriot missiles streaking into the skies over Tel Aviv temporarily overshadowed reasoned debate on the merits of NMD and profoundly affected US policy

Bush's letter to Hussein of 5 January 1991, although not explicit in describing the deterrent means, certainly expressed the intent: 'You and your country will pay a terrible price if you order unconscionable acts of this sort'

ICBMs capable of hitting the continental US. He therefore recommended a downsized programme for NMD while pushing ahead with theatre missile defences (TMD).[35] Had the Gulf War not erupted when it did, those conclusions might not have been sufficient on their own to prompt the Bush administration to make a firm commitment to deployment of NMD.

The sight of Patriot missiles streaking into the skies over Tel Aviv temporarily overshadowed reasoned debate on the merits of NMD and profoundly affected US policy. It also initially obscured considered debate over the strategic significance of the part played by ballistic missiles in the Gulf War.

Hussein, deprived of conventional means of air attack, employed Scuds in a tactical role against coalition forces, and in a strategic role against Saudi Arabia and Israel. In neither case did he achieve his objective, despite the deaths of 28 personnel in an attack on Dhahran.[36] Israel was kept out of the conflict through diplomatic efforts; Saudi Arabia was hardly likely to become detached from the coalition; and the military capability of coalition forces was never threatened. More tellingly, Hussein did not resort to the use of chemical or biological agents, despite the availability of such an arsenal. While the motivation behind this last point has been debated endlessly, there can be no doubt that there was an element of deterrence at work, nuclear or otherwise. Bush's letter to Hussein of 5 January 1991, although not explicit in describing the deterrent means, certainly expressed the intent: 'You and your country will pay a terrible price if you order unconscionable acts of this sort.'[37]

Hussein had employed exactly the same Scud tactics against Iran but on a far larger scale during the first Gulf War. The enormous psychological impact of such attacks is acknowledged,[38] and it has been argued that these attacks were a key factor in compelling Iran to sue for peace,[39] something that may have prompted Hussein to revisit the tactic. But the attacks were not a war winning strategy. In the second Gulf War, the use of such weapons failed to result in the strategic paralysis of the US or the fracture of the coalition. It is possible to overcome such crude strategy, something that has been evident ever since the first V-2 was launched. The argument that such weapons are acquired by states primarily as an instrument in regional conflict was borne out by events in the Gulf. [40] That such states seek to acquire more advanced capabilities with the intent of unleashing destruction upon the US itself was not. The utility of long-range missiles to regional powers will be discussed later. However, the element of deterrence evident in the events of the second Gulf War indicates that opposing states are at least conscious that there is a level of tolerance that can be attributed to the US and do not seek to bring down regime

Patriot played a prominent role in boosting NMD, despite its having been developed outside the SDI programme as an Army air defence system

threatening retaliation. Cooper's report validated the need for TMD but did not justify a resurgence of faith in the strategic utility of NMD.

Nevertheless, the NMD genie was out of the bottle. Patriot played a prominent role in boosting NMD, despite its having been developed outside the SDI programme as an Army air defence system. As Armstrong noted at the time:

> *After years of controversy and budget cuts, 'Star Wars' may be about to get a proton of respect. The reason is not so much the program itself, which after years and $24 billion, is still far from its goal of being able to zap thousands of warheads speeding through space. Instead, it is because of the euphoria over the success of the Patriot system in the Persian Gulf, shifting perceptions of who America's enemies are, and President Bush's decision to narrow the goals of the program. The result is a sharpening debate over the kind of defenses the nation needs.*[41]

During his State of the Union Address, twelve days after the first Scuds had been fired in the Gulf, Bush indicated his intent to push ahead with SDI based on developing defences against 'limited ballistic missile strikes, whatever their source.' [42] The new system was to be known as the Global Protection Against Limited Strikes (GPALS).

Another section in the justification for an NMD, the threat of accidental missile launch, slipped into place in August with the attempted coup against Gorbachev. During the ensuing turmoil, doubts were quickly raised as to whose finger was on 'the button.' Quizzed on control of the Soviet nuclear arsenal, Bush replied 'I don't imagine there's been any change in that. And we don't know whose in charge'.[43] Later in August the President seemed rather more confident, stating, 'We had a group as knowledgeable as one can be about Soviet procedures taking a look at this, and I want to reassure the American people that at no time has there been any official concern about inadvertent use of nuclear weapons or something going awry.'[44] This optimistic conclusion was not reflected in the National Security Strategy published that month, which confirmed the decision to pursue GPALS:

> *The threat posed by global ballistic-missile proliferation and by an accidental or unauthorised launch resulting from political turmoil has grown considerably. Thus the United States, our forces, and our allies and friends face a continued and even growing threat from ballistic missiles.*[45]

During a year of unparalleled turmoil, US policy on NMD had undergone a radical transformation. Between Aspen and the new National Security Strategy, events drove the Bush administration to make a solid commitment to pressing ahead with NMD. By December, President Bush had signed into law the Missile Defense Act of 1991[46] that contained deployment of 'a highly effective defense of the United States against limited attacks of ballistic missiles' as a key goal. This legislation contained the caveat that any such system comply with the 1972 ABM Treaty, despite the fact that these aspirations are mutually exclusive. Article 1 of the ABM Treaty states explicitly that parties undertake 'not to deploy ABM systems for a defense of the territory of its country.' To overcome this hurdle, the Missile Defense Act urged the President to pursue appropriate amendments to the ABM Treaty with the Soviet Union.

The Gulf War clearly had a disproportionate influence on the development of BMD policy, and its immediate aftermath coloured both national security and missile defence thinking

The Gulf War clearly had a disproportionate influence on the development of BMD policy, and its immediate aftermath coloured both national security and missile defence thinking. The use of Scud missiles and the deployment of Patriot to counter this threat carried forward not only development of TMD but also NMD. Even the Vice President of the Raytheon Company, giving Congressional testimony in defence of the Patriot system, noted the unhealthy influence of his company's system on the NMD debate:

> *Some take strong issue with the notion of strategic ballistic missile defense and the SDI program. They believe that Patriot's success, if unchallenged, will give a boost to SDI and National Missile Defense…… In fact, the threat is different, the technology is different and the mission requirements are different. The case for one should not be made on the case for the other, from whichever perspective one chooses to look.*[47]

NMD achieved prominence not as a coherent element of the embryonic reassessment of US grand strategy but as a reaction to rapidly moving contemporary events. As a result, it sat uneasily in the National Security Strategy of the successor Clinton administration; an aspirant capability but not one integrated with the higher priority strategies of regional engagement and non-proliferation. NMD research and development were reinvigorated but at a cost which could easily be accommodated during the ensuing economic boom. NMD was consequently relegated to the position of debating point in Congress, a political football rather than an essential element of grand strategy.

NMD achieved prominence not as a coherent element of the embryonic reassessment of US grand strategy but as a reaction to rapidly moving contemporary events

The 1990's saw a succession of Bills and Acts mandating the President to develop NMD, tackle particular emerging threats or press ahead with rapid deployment. There was limited progress in pursuing amendment of the 1972 ABM Treaty to accommodate US aspirations for a national ABM system, but far greater effort in differentiating between theatre and strategic missile defence systems to enable pursuit of TMD. The latest in the lineage of ballistic missile defence legislation, the National Missile Defence Act of 1999, simply called for deployment of a system capable of defending the territory of the United States against limited ballistic missile attack 'as soon as is technologically possible'. It was this criterion that enabled Clinton to make his decision to defer deployment. NMD was never a critical component of the National Security Strategy for the Clinton administration; it was a continuation of the hedged bet of previous administrations.

NMD was never a critical component of the National Security Strategy for the Clinton administration; it was a continuation of the hedged bet of previous administrations

The debate on NMD has been conducted concurrently with successive iterations of the National Security Strategy. These have laid emphasis on defining national interest, developing regional engagement, and building international security structures. Simultaneous with the development of these concepts, there has been a gradual undermining of traditional concepts of deterrence coupled with growing claims from NMD proponents that certain 'states of concern' [48] or 'rogue states' [49] constitute irrational actors in the international system and pose a direct threat to US security, primarily through acquisition of ballistic missiles and weapons of mass destruction (WMD). For the majority of NMD enthusiasts in Congress the correct response to such actors is the immediate deployment of missile defences. The opposing camp sees pursuit of arms reduction, confidence building measures and non-proliferation regimes as the preferred means of confronting regional security concerns. Madeleine Albright reiterated this policy in her statement following the Clinton deferral decision:

> *We are working hard with other countries to counter the proliferation of missiles and missile technology, including efforts to end the missile programs in North Korea, Iran and Iraq. These efforts have our highest priority.*[50]

The latter approach has proved ascendant in successive editions of the National Security Strategy, product of the executive, while the former, backed by vocal Republicans, has dominated proceedings in the legislature. While Republicans claim there is now consensus on the need for NMD, many Democrats remain sceptical that the time has come to deploy the system, or that it will ever come. Which faction is correct depends for the most part on how the US intends to conduct itself in international relations.

During the Gulf War, Bush had talked of the opportunity to build a 'New World Order' 51 but idealists and those predicting the 'end of history' will have been disappointed by the failure to realise their own versions of such a vision. Realist approaches to international relations have persisted in US security strategy, despite the headlining of more liberal methods and goals. The 1991 National Security Strategy began the wide-ranging reassessment of threats to national security and the appropriate instruments of power that could be deployed to meet those challenges. While the strategy laid the foundations for greater attention to economic, political, global and social concerns, it continued to consider security threats in predominantly military terms: increasing regional conflict; unpredictability in crises; predisposition to escalation and the use of military force; the necessity of altering military force structures; and the desire for a concept of US interests.52 This final element illustrated one of the fundamental problems facing the US, the need to establish those events or threats that might warrant military response. In the absence of the a perceived monolithic communist threat, the National Security Strategy has evolved three categories of national

While Republicans claim there is now consensus on the need for NMD, many Democrats remain sceptical that the time has come to deploy the system…

interest – vital national interest, important national interest, and humanitarian or other interests – and qualified their associated levels of military response. In the case of vital national interests, US military commitment is robust and unambiguous:

> *Vital interests – those of broad, overriding importance to the survival, safety and vitality of our nation. Among these are the physical security of our territory and that of our allies… We will do what we must to defend these interests, including, when necessary and appropriate, using our military power unilaterally and decisively.*[53]

But as US security strategy has focussed on policies of regional engagement and military intervention where necessary, fears have grown that the proliferation of ballistic missiles will militate against the ability of the US to apply military power in regional conflicts by giving opponents the capability to threaten the United States itself. The paradoxical implications for policy are illustrated in the following two conclusions from the first report of the US Commission on National Security/21st Century:

> *Emerging powers – either singly or in coalition – will increasingly constrain US options regionally and limit its strategic influence. As a result we will remain limited in our ability to impose our will, and we will be vulnerable to an increasing range of threats against American forces and citizens overseas as well as at home.*[54]

> *The United States will be called upon frequently to intervene militarily in a time of uncertain alliances and with the prospect of fewer forward-deployed forces.*[55]

The Clinton administration saw liberal strategies of regional engagement and non-proliferation as essential to prevent conflicts that might threaten vital national interests. NMD proponents have been more realist and tend to see challenges to US interests as inevitable. It is this threat of intervention that also drives the proliferation of ballistic missile technology in those regional powers of concern to the US. Nations outside US sponsored security structures are faced with overwhelming US conventional intervention in favour of their neighbours in the event of regional conflict. Thus, there are twin motivations for their acquisition of ballistic missile technology: regional competition and the threat from the US. The National Intelligence Estimate on the ballistic missile threat to the United States identified this problem:

> *The missile threat will continue to grow, in part because missiles have become important regional weapons in numerous countries' arsenals, and provide a level of prestige, coercive diplomacy, and deterrence that non-missile means do not. Thus, acquiring long-range ballistic missiles armed with (WMD) will enable weaker countries to defer, constrain, and harm the United States…. Their strategic value is derived primarily from the threat of their use, not in the near certain outcome of their use.*[56]

Secretary of Defense Rumsfeld indicated that it is this strategy by weaker states that drives the incoming administration's support for NMD. He presented a counterfactual consideration of deployment at his confirmation hearing:

> *The failure to deploy appropriate defensive systems could also have adverse effects including: paralysing our ability to act in a crisis or deterring other countries from assisting us; providing incentive to US friends and allies to develop nuclear*

capabilities; putting the US in a situation where its only option may be pre-emption; and moving the US to a more isolationist position because of an inability to defend against ballistic missiles.[57]

US uncertainty over the capabilities and intent of belligerent regional powers armed with ballistic missiles stems in part from an underlying loss of faith in the validity of deterrence as an instrument of security strategy

US uncertainty over the capabilities and intent of belligerent regional powers armed with ballistic missiles stems in part from an underlying loss of faith in the validity of deterrence as an instrument of security strategy. This lack of confidence in one of the cornerstones of strategy is worrying. Freedman has eloquently expressed the fundamental importance of deterrence:

At one level, deterrence never goes away. Certain options, whole categories of actions, are precluded because of the possible response of others. Land may be coveted but not grabbed; the unacceptable practices of governments are denounced, but they are left untouched; ideological ambitions are shelved; inconveniences, disruptions, and outrages are tolerated; punches are pulled. Over time, after operations have been delayed and plans shelved, it is forgotten that these operations were ever proposed or that the plans were once taken seriously.[58]

If it attempts to circumvent or simply disregard deterrent postures in regional powers, the US courts behaviour as irrational as that it envisions in potential opponents. The US seeks to guarantee its freedom of action through NMD while weaker states develop their offensive capabilities precisely because they perceive the US is pursuing unconstrained hegemony. Regionally, proliferation may be fuelled by the classical security dilemma, but when such nations consider the security threat posed by the US they find it explicitly stated in that country's national security policy. Viewed in this light, their response is entirely rational.

The world survived a Cold War defined by deterrent structures founded on the possession of nuclear weapons. The protagonists pursued their respective agendas within this deterrent framework, implicitly acknowledging limitations on their freedom of action and pursuing alternative strategies to avoid direct confrontation over critical interests. The era spawned an array of theoretical variations on the central principle of deterrence: existential deterrence; core strategic deterrence; extended deterrence; compound deterrence; collateral deterrence; and peripheral deterrence.[59] This extended family was a product of strategic ossification, confining strategists to endlessly deconstruct this central concept in the absence of a more dynamic context. The decline in the prominence of deterrence in strategic thinking springs partly from its close association with the Cold War, which obscured its origins in realist logic, and in part from the characterisation of emerging opponents as irrational and therefore not subject to a deterrent framework.

The decline in the prominence of deterrence in strategic thinking springs partly from its close association with the Cold War…

In a comprehensive analysis of the attack on Cold War nuclear deterrence,[60] Garfinkle has detailed the prolonged campaign mounted against deterrence on both moral and practical grounds. Threatening the destruction of millions of innocent people was believed by some to be morally indefensible under any circumstances. Practically, the doubt persisted that deterrence was inherently unstable and vulnerable to failure. SDI strengthened many of these arguments with its presentation of strategic defences as an alternative to nuclear deterrence rather than a means of bolstering it.

Garfinkle made a telling observation of the effect of this debate on the public at large, which became bored with deterrence and 'tired of hearing the same things and being reminded of the same threats over and over again….it is not deterrence that some people object to, but the fact that maintaining it is a mysterious and costly job that never seems to end.' [61]

Deterrence came to be synonymous with Cold War nuclear deterrence. In the public mind, the great debate over threats and nuclear responses should have ended with that conflict. The Gulf War raised its spectre again with respect to ballistic missiles and WMD. Bush's less than explicit response to the threat of Iraqi WMD ultimately served to undermine the credibility of a nuclear response to a non-nuclear strategic threat, as has US commitment to the Non-proliferation Treaty, which excludes the use of nuclear weapons against declared non-nuclear states. There has emerged a widely held perception that, despite all the bluster and speculation during the Gulf War, the US will not resort to nuclear weapons in response to anything less than a nuclear attack.

There has emerged a widely held perception that, despite all the bluster and speculation during the Gulf War, the US will not resort to nuclear weapons in response to anything less than a nuclear attack

This marks a change in emphasis from Cold War strategy that had envisaged limited nuclear war-fighting options in response to overwhelming conventional Soviet attack. Such strategies could be justified in the context of superpower confrontation but the utility of the nuclear responses against regional powers armed with ballistic missiles and WMD is increasingly questioned. It is the US that now constitutes the overwhelming conventional force and it is the errant regional power that is seen as likely to escalate to the use of WMD.

Accompanying this reversal in traditional deterrent roles is a belief that massive US conventional superiority is capable of delivering 'devastating blows against the economic, military and political power bases of an adversary without resorting to the use of nuclear weapons',[62] a view championed by Les Aspin as Chairman of the House Armed Services Committee in the 90's. In this argument, conventional deterrence through overwhelming superiority can replace reliance on nuclear deterrence. While the US has certainly demonstrated the ability to shatter an opponent's peacetime infrastructure, it has also demonstrated considerable reluctance to commit the force necessary to terminate a regime's tenure in the type of retaliation that would surely be expected in the wake of a

WMD attack on the US. Forward deployment of superior conventional force may play a role in conflict prevention but should battle be joined it may have little effect on the means employed in war.

Another contemporary attack on deterrence has been the casting of a small core of proliferating states as irrational actors that pose a major threat to the US. Such a threat was not immediately evident in the wake of the second Gulf War when, as Chairman of the Joint Chiefs of Staff, Colin Powell commented; 'Think hard about it, I'm running out of demons. I'm running out of villains. I'm down to Castro and Kim Il-sung.'[63] Since then, the demonising of certain states has been directly related to their acquisition of ballistic missile technology and WMD. North Korea, Iraq and Iran now form a central triad in US threat perceptions, while Libya, Syria, Cuba and others occupy far less prominent positions.

However, threat assessments and discussions have consistently focussed on the technical capabilities of these three nations, while their intent has been either neglected or labelled irrational. This was particularly true of the 1998 Rumsfeld Commission Report on the ballistic missile threat to the US. By contrast, National Intelligence Estimates (NIE) have tended to balance assessments of both capability and intent, as has already been seen in their observations on the motivations behind the acquisition of ballistic missiles by regional powers. As a result, the intelligence community has found itself under attack from proponents of NMD for underplaying the threat. The result of this politicking with threat assessments is to provoke unease domestically and incredulity among allies. The House of Commons Foreign Affairs Select Committee received evidence of both. They heard that an 'uncoordinated but terrifying army of "rogue states", "terrorists" and other actors has assembled in the public and political minds against the American people and government', while an official at the Conference on Disarmament in Geneva informed the Committee that the idea of a North Korean missile attack upon the US was 'surrealistic'.[64]

…as Chairman of the Joint Chiefs of Staff, Colin Powell commented; 'Think hard about it, I'm running out of demons. I'm running out of villains. I'm down to Castro and Kim Il-sung'

Finally, deployment of NMD would be yet another indication of a lack of faith in deterrence, or at least an indication that regime-terminating nuclear retaliation by the US is no longer considered a valid option.

Re-invigorating US deterrent strategies would ultimately do more to enhance US national security than NMD. In order for deterrence to work, particularly in regional conflict in support of alliances, an opponent must be made explicitly aware that the capability to inflict credible retaliation is available and will be used. Both the US and regional allies 'have strong incentives to involve each other in implementing jointly an extended nuclear deterrent strategy to deter the challenger from initiating the use of WMD.'[65] If the US actually intends to intervene against WMD regional challengers in pursuit of vital interests then those challengers should be made explicitly aware that attack on the US would draw an appropriate

response. Arguments that such a policy would reinforce the perception of chemical and biological weapons as the 'poor man's bomb' are invalid as possession and use of such weapons would in fact expose the challenger to costs that far outweigh their utility as weapons of terror.

Nor is it valid to argue that deployment of NMD would negate the need for nuclear deterrence and permit reliance on overwhelming conventional force. Such a policy would give a regional challenger confidence in his freedom to test those defences, pursuing the potential for massive damage to the US or its allies, safe in the knowledge that the US response might merely be a redoubling of the conventional effort against him.

Was even one missile to pierce the shield, the US would still be faced with the problem of devising an appropriate response. Could such retaliation be anything less than massive, instantaneous and overwhelming?

This also presupposes a perfect missile defence. NMD as currently envisaged is intended to prevent only limited attack, the implication being that this simplifies the technical challenge of missile interception and increases the likely performance of the system. The Vice-President of Raytheon's comments on the effectiveness of Patriot reveal this to be a fallacy with dangerous implications:

> *In World War 11, the British were faced with trying to adapt their air defenses to the German V1's. As their learning increased, so did their success rates. Five weeks into their new mission, they were successfully intercepting 57 percent of the V1's. Five weeks later their success rate had increased to 74 percent and a week later to 90 percent. Patriot, of course, only shared the first five weeks' experience (and a similar overall success rate), but during that time extensive learning was going on.*[66]

Complex defensive systems faced with unpredictable threats are unlikely to work perfectly. Only a supreme optimist would argue that the first limited ballistic missile attack on the US would occur exactly as expected, particularly if opponents develop appropriate countermeasures. It can also be assumed that in the event of deterrence failure there would be more than one such attack. It would be costly to pursue a strategy that relied on a national missile defence that would only function correctly after a period of 'learning'. Was even one missile to pierce the shield, the US would still be faced with the problem of devising an appropriate response. Could such retaliation be anything less than massive, instantaneous and overwhelming? Any other response would signal that the use of ballistic missile delivered WMD is indeed a valid asymmetric strategy for a regional power.

The US desire to maintain its freedom of action when intervening in support of national interests is understandable but deployment of NMD would not remove the deterrent value of WMD to potential challenger states. But neither does the acquisition of WMD alter the deterrent threat posed to a challenger by US forces. It is reasonable to assume that deterrent structures will continue to limit the extent, if not the occurrence, of regional conflict, and confine it in much the same way as Cold War conflict.

The counsel of the 1999 NIE that regional challengers acquire WMD only to complicate US decision-making would seem valid. That is not to say that WMD use could not be provoked in extremis, rather that providing a defence against them may lead the

US to undertake courses of action that would make their employment more likely. Such a contingency would render NMD a hazard to security rather than merely a deterrent irrelevance. If 'states of concern' continue to develop their ballistic missile capability, as seems inevitable if non-proliferation is not achieved and US intervention remains a threat, then the US will be forced to reconsider exactly which interests it considers vital. As Freedman predicts, 'there is not going to be a rush to take on states with nuclear, chemical, or ballistic missile stocks. As we saw in the Gulf, this threat – so long as it is non-nuclear – may not be overriding but it will raise the requirements for intervention.' [67]

It is the proliferation of ballistic missiles and WMD among regional powers, be they friend or foe of the US, which remain the major fuel of strategic tension. If deployment of NMD were to have a detrimental impact on efforts to build an effective non-proliferation regime then it would certainly decrease US national security.

In his discussion of proliferation and critical risk,[68] Thies has drawn on Ellsberg's detailed theoretical analysis of the likelihood of nuclear war, based on the costs and benefits of 'Wait' over 'Strike', to argue that it is the transition from embryonic nuclear power to more advanced capabilities that poses the greatest risk of deterrence breakdown. Theis's analysis suggests that a regional power would indeed consider a direct attack on the US to be a counterproductive strategy. However, the threat of war due to proliferation is greatest between regional powers with evolving capabilities, such as India and Pakistan. US threat assessments have tended to play down the danger posed by these states because their weapons are not directed at the US and their relationships are seen as in equilibrium. But conflict between such states may soon emerge as a major danger to international security if proliferation is not checked.

Relations between major powers with stable deterrent structures drive the non-proliferation regime. Deployment of NMD would undoubtedly have a detrimental effect on at least one of those relationships regardless of how it is handled.

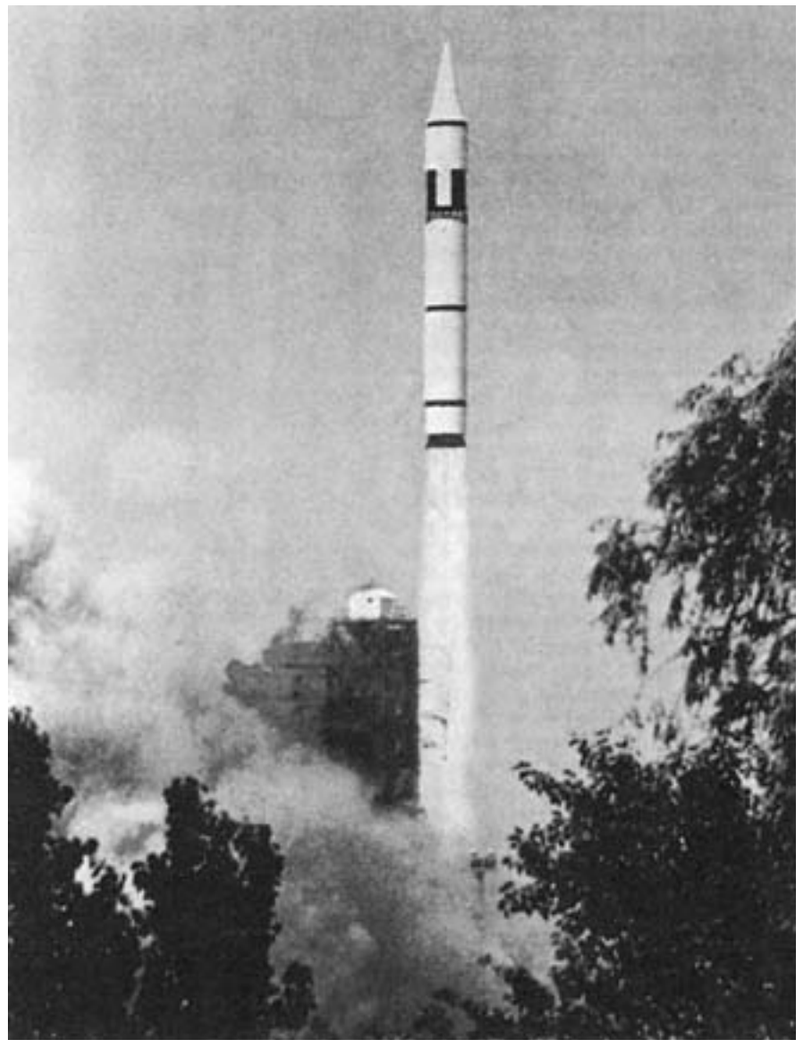
Russia has as much to fear from the proliferation of ballistic missiles as the US and might even gain kudos from being seen to take a constructive attitude towards amending the ABM Treaty to accommodate NMD.[69] At the June 2000 summit meeting in Moscow, the two nations agreed to explore more far-reaching co-operation to address missile threats. That said, there remain concerns that Russia 'will withdraw not only from the START II Treaty but also the whole system of treaties on limitation and control of strategic and conventional weapons' [70] if NMD is deployed without renegotiating the ABM Treaty. This might damage non-proliferation initiatives, from the Non-Proliferation Treaty to the Nunn-Lugar Co-operative Threat Reduction Program (CTR), and would certainly adversely affect US national security. Fortunately, Russia has a financial interest in programs like CTR and will be reluctant to jeopardise them. Added to this, it might well stand to extract political capital by exploiting a unilateral US decision on NMD in a more positive manner.

Russia has as much to fear from the proliferation of ballistic missiles as the US and might even gain kudos from being seen to take a constructive attitude towards amending the ABM Treaty to accommodate NMD

China's situation differs for three reasons. NMD represents a direct threat to its ageing ICBM force of around 20 missiles, it remains in conflict with the US over Taiwan and it has far less political prestige or money invested in the non-proliferation regime. China is likely to modernise its ICBM force regardless of whether NMD is deployed, so such a modernisation would not affect the strategic balance with the US. But with NMD deployed, the costs to China of maintaining that balance will be far greater and could predispose China to more belligerent attitude, including lack of co-operation on non-proliferation. China's position as one of the principal suppliers of missile technology to regional powers would make that a very damaging development for US national security. China also has concerns about US intervention, principally over Taiwan, that mirror those of other regional powers. For China to become convinced of US intentions to seek hegemony through acquisition of NMD would be even more damaging to strategic security.

US proposals for NMD deployment, viewed in company with Congress's failure to ratify the CTBT and its objections to compliance measures in the Chemical and Biological Weapons Conventions, do not promote the belief that the US has much confidence in the multilateral arms control agreements it was instrumental in setting up in the first place.[71] In his findings and recommendations to the President on the CTBT, General Shalikashvili concluded that 'perhaps more than any other nation, the United States would be negatively affected by an erosion of the international consensus on the importance of nuclear non-proliferation, or by a perception that nuclear weapons are instruments that could be readily used in regional conflicts.' [72] On the issue of non-proliferation, as with NMD, US domestic political conflict has prompted outcomes that are in conflict with the objectives of US national security strategy.

China is likely to modernise its ICBM force regardless of whether NMD is deployed…



To return to the criteria for Clinton's decision on NMD, it can be concluded that the President would have been equally justified in deferring deployment on the grounds that national security will not be enhanced, and could well be damaged. It is a measure of US domestic political sensitivity over NMD that he opted for deferment on the grounds of technical immaturity. Viewing strategic ballistic missile defences within their lengthy historical context reveals them to be a largely irrelevant technological option that exists outside the mainstream evolution of the international system. They thrive on the instinctive desire for defence against a troubling threat,

and enjoy the support of a considerable military-political-industrial complex. Their deployment has invariably been proposed in response to symptoms of change in the strategic environment. The cure has always lain in treating the illness not the symptoms. The Cold War was ended by reviewing arms reduction and creating the conditions whereby the inherent weakness of the Soviet system could be acknowledged. Similarly, post-Cold War US National Security Strategy has gradually and correctly established regional engagement, confidence-building measures and non-proliferation as the best path to building a more secure international order.

NMD does not constitute a coherent or integrated part of that security strategy. It seeks to guarantee the ability to intervene with military force where interests are seen as vital, an objective which itself creates tension and instability. Rather than pursuing the art of strategy, proponents of NMD would prefer to rely on the blunt instrument of technology. The proliferation of ballistic missiles and WMD is a threat to international security, regardless of which nations acquire them. Demonising certain relatively weak states as part of the justification for NMD only casts doubt on the finesse of US strategic thought. As one Russian politician put it, 'A cannon is not the best weapon to shoot at flies'.[73]

The 'New World Order' seemed to promise a consensual international system that respected the rights of nations within a common security framework mediated by the major powers. That vision has yet to be realised, and for many nations NMD raises the prospect of unconstrained US power that is at odds with such a system. Those who mould US national security are sensitive to this view. The US Commission on National Security Strategy/21st Century concluded its second phase report with an observation that serves equally well in closing here:

> *Leadership is not the same as dominance; everyone else's business need not also be America's. Just as riches without integrity are unavailing, so power without wisdom is unworthy. As Shakespeare put it:*
>
> *O, it is excellent*
> *To have a giant's strength; but it is*
> *tyrannous*
> *To use it like a giant.*
>
> *(Measure for Measure, Act II, Scene 2)* [74]

NOTES

1 Address at Georgetown University, 'Clinton NMD Deferral Decision Lessens Immediate Sense of Crisis', *Disarmament Diplomacy*, Issue 50 (www.acronym.org.uk/50defer.htm), 7 November 2000.

2 Geoffrey de Freitas MP (Lincoln), Hansard 1937, 17 April 1957

3 Denoon, David, *Ballistic Missile Defense in the Post-Cold War Era* (Oxford: Westview, 1995), p.187

4 Holst, Johan & Schneider, William (Eds), *Why ABM?* (London: Pergammon, 1969), p.4

5 Papp, Daniel, *From Project Thumper to SDI* (www.airpower.maxwell.af.mil/airchronicles/apj87/papp.html), 7 Nov 00, p.3

6 Ibid, p.6.

7 Mikheyev, Dmitry, *The Soviet Perspective on the Strategic Defence Initiative* (Washington: Pergamon-Brassey's, 1987), p.56

8 Williams, Phil and Kirby, Stephen, 'The ABM and American Domestic Politics' in *Antiballistic Missile Defence in the 1980's*, ed by Bellany, Ian and Blacker, Coit D, (London: Frank Cass, 1983), p.47

9 Ibid, p.48.

10 US Department of State, *Washington File*, 22 December 2000 (www.usinfo.state.gov/topical/pol/arms/stories/00122202.htm), 22 January 2001.

11 Chayes, Abram and Wiesner, Jerome, eds, *ABM. An Evaluation of the Decision to Deploy an Antiballistic Missile System* (New York: Signet, 1969), p.25.

12 Binder, James, 'The Must Case for ABM. Truly a Weapon for All Seasons', *Army*, May 1969, pp.16-23.

13 Moore, David, 'American Support Idea of Missile Shield – but know little about the Issue' (www.gallup.com/poll/release/pr010215b.asp), 16 February 2001.

14 Ibid.

15 Mellman, Mark, et al, 'No pressure from the People', *Arms Control Today*, Oct 00, p.23.

16 Denoon, David, opcit, p.190.

17 Zaloga, Steven, 'Moscow's ABM Shield continues to crumble', *Jane's Intelligence Review*, Feb 99, p.10.

18 Baucom, Donald, *The Origins of SDI 1944-1983* (Lawrence: University Press of Kansas, 1992), p.95.

19 Ibid, p.96.

20 Gray, Robert, 'Arms Control Implications of Ballistic Missile Defence' in *Antiballistic Missile Defence in the 1980's*, ed by Bellany, Ian and Blacker, Coit D, (London: Frank Cass, 1983), p33.

21 Williams, Phil and Kirby, Stephen, op. cit, p.56.

22 Ibid p.55.

23 Reagan, Ronald, 'Address to the Nation on Defense and National Security', 23 March 1983 (www.reagan.utexas.edu/resource/speeches/1983/32383d.htm).

24 Ibid, p.140.

25 Lakoff, Sanford and York, Herbert, *A Shield in Space? Technology, Politics and the Strategic Defense Initiative* (Los Angeles: University of California Press, 1989), p.218.

26 Freedman, Lawrence, 'Does Deterrence Have a Future?', *Arms Control Today*, October 2000, p.7.

27 Freedman, Lawrence, 'British Attitudes on SDI', in *Strategic Defences and the Future of the Arms Race – a Pugwash Symposium*, ed J Holdren, (London: Macmillan, 1987), p.144.

28 Lakoff, Sanford and York, Herbert, op. cit, p.212.

29 Freedman, Lawrence, 'Does Deterrence Have a Future?', *Arms Control Today*, October 2000, p.7.

30 Reagan, Ronald, 'Address to Members of the British Parliament', 8 June 1982 (www.reagan.utexas.edu/resource/speeches/1982/60882a.htm). Notably, the speech does not actually contain this phrase but refers to 'totalitarian evil'.

31 Snider, Don M. 'The National Security Strategy: Documenting Strategic Vision', *US Army War College, Strategic Studies Institute Monograph Second Edition*, 15 Mar 95, p.2 (www.carlisle-army.mil/usassi), 6 Mar 01.

32 Ibid, p. 8.

33 President George Bush Snr, 'Remarks at the Aspen Institute Symposium in Aspen Colorado', 2 August 1990 (www.bushlibrary.tamu.edu/papers/1990/90080206.html), 21 March 2001.

34 National Security Strategy of the United States (Government Printing Office: Washington, DC, 15 August 1991).

35 Denoon, David, op. cit, p.128.

36 GAO Report B-247094, 'Patriot Missile Defense problems led to systems failure at Dhahran, Saudi Arabia' (Government Printing Office: Washington, DC, February 1992).

37 Statement by Press Secretary Fitzwater on President Bush's letter to President Hussein of Iraq, 12 January 1991 (www.bushlibrary.tamu.edu/papers/1991/91011201.html).

38 Denoon, David, op. cit, p.160.

39 Carus, Dr. W. Seth, Visiting Fellow, National Defence University, Testimony to Senate Hearing 105-268, Subcommittee on International Security, Proliferation and Federal Services of the Committee on Governmental Affairs, United States Senate. *Missile Proliferation in the Information Age* (Washington, DC: Government Printing Office, 22

September 1997), p.25.

40 Freedman, Lawrence, op. cit, p.7.

41 Denoon, David, op. cit, p.130.

42 President George Bush Snr, 'Address before a Joint Session of the Congress on the State of the Union', 29 January 1991 (www.bushlibrary.tamu.edu/papers/1991/91012902.html).

43 'Remarks and Exchange with reporters in Kennebunkport, Maine, on the attempted coup in the Soviet Union', 19 August 1991 (www.bushlibrary.tamu.edu/papers/1991/91081901.html).

44 'The President's News Conference with Prime Minister Major of the United Kingdom in Kennebunkport, Maine', 29 August 1991 (www.bushlibrary.tamu.edu/papers/1991/91082900.html).

45 National Security Strategy of the United States (Government Printing Office: Washington, DC, 15 August 1991), p.29.

46 102nd Congress, 1st Session, House Resolution HR2100. '*National Defense Authorization Act for Fiscal Years 1992 and 1993*.' Washington, DC: Government Printing Office, 5 December 1991 – Section C covers the Missile Defense Program and is cited as 'Missile Defense Act of 1991'.

47 James W. Carter's testimony before the Legislation and National Security Subcommittee of the House Government Operations Committee, 7 April 1992

48 First used by Secretary of State Albright on 19 June 2000 in place of 'rogue states'. See US Dept. of State Daily Press Briefing No 61, Richard Boucher, Spokesman, 19 June 2000 (www.usinfo.state.gov), 21 November 2000.

49 This term has not yet been resurrected under the new Bush Administration. See State Department Daily Briefing 5 March 2001. Questioned on North Korea's status as a 'rogue state', spokesman Richard Boucher replied 'I'm not here to play semantics.'

50 'Statement on Presidential Decision on NMD' (Washington DC: US Department of State), 1 September 2000.

51 'The President's News Conference on the Persian Gulf Crisis', 30 August 1991 (www.bushlibrary.tamu.edu/papers/1991/90083001.html).

52 Pocalyko Michael, 'Riding the Storm: The Influence of War on Strategy', in *Reconstituting America's Defense – The New US National Security Strategy*, eds J Tritten and P Stockton, (New York: Praeger, 1992), p.53.

53 National Security Strategy of the United States (Government Printing Office: Washington, DC, December 1999), p.1.

54 The United States Commission on National Security/21st Century, Phase 1 Report, '*New World Coming: American Security in the 21st Century*', Washington, DC: Government Printing Office, 15 September 1999, p.4.

55 Ibid, p.6.

56 S.Hrg 106-671, Subcommittee on International Security, Proliferation and Federal Services of the Committee on Governmental Affairs, United States Senate. *The National Intelligence Estimate on the Ballistic Missile Threat to the United States*, Washington, DC: Government Printing Office, 9 February 2000, p.7.

57 Confirmation Hearing, Senate Armed Services Committee, 11 January 2001.

58 Freedman, Lawrence, op. cit, p.3.

59 Garfinkle, Adam. 'The Attack on Deterrence: Reflections on Morality and Strategic Praxis'. *Journal of Strategic Studies*, June 1989, p. 173.

60 Ibid pp. 166-199.

61 Ibid. p. 167.

62 Nitze, Paul and McCall, J.H, 'Contemporary Strategic Deterrence and Precision-Guided Munitions', in *Post-Cold War Conflict Deterrence*, (Washington, DC: National Academy Press, 1997), p.80.

63 Stockton, Paul, 'Introduction', in *Reconstituting America's Defense – The New US National Security Strategy*, eds J Tritten and P Stockton, (New York: Praeger, 1992), p.3.

64 Eighth Report, 1999-2000 Session, Foreign Affairs Select Committee, *Weapons of Mass Destruction*. (London: HMSO, October 2000), p.2.

65 Utgoff, Victor, 'Extended Nuclear Deterrence and Coalitions for Defending Against Regional Challengers Armed with Weapons of Mass Destruction', in *Post-Cold War Conflict Deterrence*, (Washington, DC: National Academy Press, 1997), p.102.

66 James W. Carter, op. cit.

67 Freedman, Lawrence, 'Weak States and the West: The Future Surveyed', in War, ed L Freedman, (Oxford: OUP, 1994), p.362.

68 Thies, Wallis. 'Proliferation and Critical Risk'. *Journal of Strategic Studies*, December 2000, pp. 51-76.

69 Daalder, I, Goldgeiger, J and Lindsay J. 'Deploying NMD: Not Whether, But How'. *Survival*, Spring 2000, p. 15.

70 President Vladimir Putin, Address to Duma, May 2000.

71 Kelle, Alexander, 'NBC Arms Control Under Stress'. *The International Spectator*, September 2000, p.91.

72 Shalikashvili, Gen J. M (USA,retd), 'My Findings and Recommendations to the President on the Comprehensive Test Ban Treaty', (Washington, DC: 5 January 2001).

73 Dmitri Rogozin, Chairman of the Duma International Relations Committee, quoted in 'Threat of Rogue States: Is it Reality or Rhetoric?', *Washington Post*, 30 May 2000.

74 The United States Commission on National Security/21st Century, Phase 2 Report, '*Seeking a National Strategy*', Washington, DC: Government Printing Office, 15 April 2000, p.15.