

Why was BMD so attractive to the Bush administration?

Written by James Chisem

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JAMES CHISEM, JUN 23 2011

Ballistic Missile Defence (BMD) – a blanket term which refers to weapons systems designed to intercept and neutralise incoming Intercontinental Ballistic Missiles (ICBMs) – has, since the dawn of the thermonuclear and missile ages, been a ubiquitous feature of US strategic thinking[1]. However, notwithstanding the limited development of the *Sentinel* and *Safeguard* programmes[2] during the 1960s and 1970s and the announcement of the overly ambitious *Strategic Defence Initiative* (SDI) in 1983[3], the Cold-War nuclear context of *Mutually Assured Destruction* (MAD) ensured that missile-defences were viewed by both superpowers as a dangerous addition to strategic arsenals[4]. The desire of policymakers and academics alike to escape this suicide pact was overridden by the need to maintain *crisis stability* and avoid the emergence of a situation whereby a disarming first-strike became practicable – a stance reflected in the arms-control treaties of the 1970s and 1980s[5]. The end of bi-polarity, however, led to a reappraisal of the challenges facing the United States. Although Bill Clinton made tentative steps towards elaborating a new defence posture, it wasn't until the election of George Bush Jnr in 2000 that BMD began to receive sustained attention[6]. Encouraged by the notion of a *Revolution in Military Affairs* (RMA) and, in light of the 9/11 attacks, acutely aware of the risks posed by the proliferation of WMD technologies, the Bush administration withdrew from the *1972 Anti-Ballistic Missile Treaty* (ABM) and outlined plans to develop multi-layered and multi-platform missile-defence capabilities – a series of moves which proved to be controversial on the international stage[7].

This essay will demonstrate that, in pursuing the deployment of a missile-defence system, the Bush administration was influenced by an approach to international relations which conceptualises technology as both a source of security and insecurity, and which emphasises the efficacy of pre-emptive action. Moreover, it will suggest that BMD has the potential to increase the threat posed by nuclear-armed ballistic missiles to international stability.

The discourse will be divided into three constituent parts. Firstly, it will examine the strategic logic driving contemporary missile-defence. Section two will assess to what extent BMD is technologically viable. The final section will focus on the impact of a US missile shield on the global balance of strategic nuclear forces.

i) Proliferation, Rogue States and BMD

In order to understand the resurgence of interest in BMD during the late 1990s and the 2000s, it is pertinent to stress that few, if any, strategic decisions arise in isolation from other ideational considerations. The Bush administration's enthusiastic support for missile-defence was indicative of a wider shift in American strategic philosophy – a development profoundly influenced by neo-conservative ideas concerning the unique nature of the post-Cold War security landscape – which emphasised the need of the United States to maintain unipolar preponderance into the 21st century[8]. Within this context, the *Nuclear Posture Review* (NPR) and the *National Security Strategy* (NSS) delineated a “new approach to deterrence” with BMD, alongside flexible nuclear forces and sophisticated conventional capabilities, forming one component of a ‘new triad’[9]. The strategic and international political rationale for the inclusion of missile-defence in this ‘transformation’, as Donald Rumsfeld called it, rested upon two basic assumptions – that horizontal proliferation of ballistic-missile and nuclear technology is a) more probable and b) more dangerous in what Colin Gray has termed the *Second Nuclear Age*[10].

During the past two decades the American defence establishment began to comprehend that globalisation and the

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cessation of bi-polarity greatly increased the scope and impetus for small states to gain access to information, individual expertise, and industrial hardware required to develop an ICBM and nuclear infrastructure[11]. Secretary of Defence Cohen referred to this as the “iron law of modernity”, echoing a widespread opinion that “as technology spreads and improves, the security threats beyond our borders...increase”[12]. Not only was proliferation of nuclear weapons and the means to deliver them perceived to be inevitable, but in light of the *1998 Rumsfeld Commission* the threat it posed to the United States was seen as more imminent than previously thought[13]. Indeed, the launch of a North Korean *Taepo-Dong I* missile a few months after the commission reported its findings reinforced the belief amongst figures in the Bush administration that diplomatic counter-proliferation was ineffective, and as such had to be supplemented, if not displaced, by the deployment of missile-defences[14].

What makes contemporary proliferation more dangerous than its Cold-War counterpart, however, is the type of regimes to which WMD technology is becoming available – namely rogue states such as Iran and North Korea, identified by George Bush in his famous ‘*Axis of Evil*’ address as an inimitable threat to America[15]. According to the proponents of missile-defence, whereas deterrence was effective in a Cold-War context because the original nuclear powers recognised that MAD was a ‘fact’ and hence acted in a rational, risk averse manner, the value systems of rogue states militate against similar thinking[16]. If, the argument goes, rogue actors are motivated more by theo-ideological principles than a desire to protect their populace, they will be less inclined to accept the logic of deterrence and more likely to launch an offensive first-strike on the United States[17]. The repercussions of this for US nuclear policy, as Karp observes, are far reaching – “Deterrence now faces unprecedented limits to its effectiveness. In place of erstwhile universality, deterrence has now become discrete”[18].

For those in the Bush administration mindful of the potential this presented for America to become a victim of nuclear blackmail, BMD was central to the formation of concordant counter-strategies. In an article for *Foreign Affairs*, Rumsfeld communicated the commonly held view that missile-defences would dissuade hostile regimes from obtaining ballistic-missiles and WMD, as any attack on the US would ultimately be futile and invite full-spectrum retaliation – a strategic model known as ‘*deterrence by denial*’[19]. Furthermore, if prevention and deterrence both proved to be unsuccessful, BMD could compliment the other two elements of the *NPRs* triad, buttressing “conventional counter-force attacks by destroying incoming warheads if...nuclear escalation dominance fails”[20]. This was particularly attractive to the Bush government as it could counteract the employment of access-denial strategies by rogue states and facilitate pre-emptive military intervention, thus perpetuating US dominance over strategically important regions[21].

However, it is questionable a) to what extent the suppositions underpinning BMD are an accurate reflection of reality and b) whether the deployment of missile-defences will reduce the threat posed by the nuclear armouries of antagonistic regimes to the security of the United States. The assertion, for instance, that the saliency of the thermonuclear revolution – a concept which describes how the fear of nuclear annihilation encourages caution amongst policymakers – is somehow inapplicable to certain revisionist states requires closer examination[22]. The supporters of BMD who contend that deterrence is irrelevant vis-à-vis rogue states fail to discern that the momentum behind proliferation is often regional and almost always defensive in nature[23]. Even the most despotic leaders draw their legitimacy and power from various sections of society, consequently wanting, at the very least, “to have a country they can continue to rule”[24]. It is thus decidedly tenuous to conceive of a scenario wherein Iran or North Korea, nations which are likely only to develop a small number of warheads, would launch an offensive first-strike on the US or its allies knowing that this would invite cataclysmic retaliation. As Waltz convincingly argues, “*one need not become preoccupied with the characteristics of the state that is to be deterred or scrutinise its leaders*”, since “*in a nuclear world any state will be deterred by another states second-strike forces*”[25].

It is evident, therefore, that the arguments forwarded by the Bush administration to justify investment in an extensive missile-defence system, along with the strategic doctrine laid out in the *NPR*, have significant strategic and international political implications.

Firstly, the US position on BMD implicitly undermines the credibility of deterrence in relation to rogue states[26]. For that reason, rather than discouraging proliferation, missile-defence has the potential to persuade internationally maligned regimes that deliberately acting irrationally and possessing nuclear-tipped ICBMs will provide a guaranteed

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means of resisting US power. The incentive to follow such a path as an insurance policy is likely to be reinforced by the centrality of pre-emption to US foreign policy, particularly after *Operation Iraqi Freedom*[27]. Indeed, whilst missile-defences have had no impact on the progression of the North Korean and Iranian nuclear programmes, alternative avenues of counter-proliferation such as 'debt-reduction for non-proliferation', multilateral engagement and the adoption of a less aggressive posture, remained, in part due to confidence in the effectiveness of BMD, underexplored during Bush's tenure[28].

Second, the perceived protection that a missile-shield offers against limited nuclear threats diminishes, at least in the minds of its advocates, the risks inherent in launching a disarming (conventional) first-strike against a rogue nuclear adversary. As a result, the threshold at which this option becomes viable for US leaders is substantially lowered[29]. It is arguable that the NPR's failure to declare a policy of *No First Use* could infuse any such intervention with a dangerous level of uncertainty, thereby increasing *crisis instability* – a situation in which one or both sides have an incentive to pre-empt a possible nuclear attack[30]. And herein lies a perilous paradox. The smaller a nation's nuclear arsenal is, the more likely the United States is – encouraged by the deployment of BMD – to attempt a pre-emptive strike, the more likely that nation is to take measures to improve the survivability of its nuclear forces which could be misinterpreted as offensive moves, and ultimately, the more likely that nation is to be cornered into striking first. As the strategist Thomas Schelling points out, small and vulnerable nuclear arsenals "put a premium on haste"[31].

It is subsequently clear that, contrary to the aims of the Bush administration, the development of a broad American BMD structure has the potential to induce further proliferation and decrease caution amongst US policymakers, thus heightening the destabilising effect of nuclear weapons and their means of delivery on US and international security.

ii) Limited Threats and the Technical Feasibility of BMD

It is perhaps no exaggeration to suggest that the history of missile-defence, particularly in the United States, has been defined by a disjuncture between operational ambitions and technological realities. The fact the space based ABM architecture envisioned by SDI still falls beyond the reach of modern technology is testament to this[32]. Nevertheless, the pace of progress in information communication technology over the past three decades, in tandem with the success of precision guided munitions and information warfare during the supposedly paradigm shifting *Operation Desert Storm*, appeared to present a way to circumnavigate this impasse[33].

According to this concept of a RMA, the increasing '*smart*' integration between systems that collect, analyse and disseminate data, and those that apply directed force, will enable the US military to cut through the fog of war – an idea known as *Dominant Battlespace Knowledge* – and in doing so facilitate the application of violence with unparalleled "speed, accuracy and precision"[34]. Crucially, this '*revolution*', which gained significant academic credibility throughout the 1990s, was fundamental to the thinking of key players in the Bush administration with regards to BMD[35]. Indeed, the Missile Defence Agency was enthusiastic about applying the RMA to 21st century missile-defences. The resulting research and procurement plan outlined to Congress in 2001, which fell under the rubric of evolutionary acquisition with spiral development, incorporated procedures such as constant information feedback with the intention of moving "beyond marginal improvements" and skipping "a generation of technology"[36]. In essence, if the rapid advances in technology and the expansion of the vectors along which it was transmitted after the Cold War made missile-defences a necessity, the RMA made their development and deployment more feasible. Bush's Deputy Secretary of Defence Paul Wolfowitz succinctly expressed this view by claiming that "*it makes no sense whatsoever – in an era when technology allows us to take away the ability to attack us with a single missile or a few missiles – to leave ourselves vulnerable to that threat*"[37].

However, in spite of the admittedly impressive performance of the PAC-2 and PAC-3 theatre missile defence systems against ageing Iraqi Scuds during the 2003 war, major doubts exist as to the technical effectiveness of each layer of the planned American BMD network[38]. In particular, the primary focus of US missile-defence – the hit-to-kill *Ground-based Midcourse Defence* system (GMD) – has been plagued by developmental setbacks. A 2006 report by the *Government Accountability Office* concluded that the design process for GMD interceptors was critically flawed, resulting in "uncertain reliability and service life"[39]. In addition, the test and evaluation record of mid-course missile-

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defences has been ambiguous at best. Of eleven integrated flight tests conducted between 1997 and 2004, five were successful, an equal amount failed to intercept their target, and one failed to launch due to a software malfunction[40]. The results of these tests, as well as those following them, are further problematised by the fact that the vast majority were scripted and, as the Pentagon has admitted, lacking in “operational realism”[41]. Putting to one side the revelation that a significant number of tests have employed targeting aids, it is optimistic in the extreme to presuppose that the US will know the time of an attack, the flight path of the missile and its intended target[42].

Assuming that US missile-defences did achieve a high level of operational efficacy, which is doubtful considering that even the most effective air-defences over the past 60 years have only attained a 30% kill ratio, there still remains one overriding problem[43]. Any nation that can build an ICBM or a fission/fusion weapon is also likely to be able to develop straightforward and effective counter-measures to defeat a missile-shield. The inclusion of decoys or chaff in enemy missiles, for instance, would greatly undermine the ability of an interceptor to identify the actual warhead[44]. There is also a possibility that the rhetoric emanating from the White House and Pentagon on BMD will simply persuade states like Iran to shift their focus to acquiring cruise missiles. These small sub-sonic arms are far more demanding for a BMD system to deal with when compared to ballistic missiles and could cause difficulties in theatre or if launched from a ship[45].

Ironically then, the Bush administration's anxious desire to find a solution to the perceived threat posed by the intersection of destructive technology and sub-optimal decision-making may exacerbate the seriousness of that threat whilst providing little protection from it.

iii) BMD and Offence-Defence Arms-Racing

When, much to the consternation of Russia and China (PRC), George Bush announced his intention to renege on the 1972 *ABM Treaty*, he did so by justifying the move in terms of the need to progress beyond cold war mentalities[46]. According to the NPR, the incorporation of Moscow into the institutions and norms of the international system since 1991, together with widespread Russian-American cooperation on global terrorism after 9/11, had essentially rendered the relationship of MAD between the two countries as an anachronism. If the US no longer gauged its nuclear forces, nor formulated its strategic targeting with Russia in mind, then the deployment of BMD could be framed as a defensive move[47]. To be certain, Sino-Russian leaders were assured that US missile-defences only concerned their respective arsenals in so much as they could protect against an accidental launch[48].

Instead of consigning the legacy of cold war to the scrapheap of history, however, there is ample reason to suppose that the missile-defence debate may actually reignite some of its most destabilising aspects. On this point it is important to note that perception, rather than intent, is the key factor determining the unfolding of events in the anarchy of international politics. It does not necessarily matter whether US plans for BMD are exclusively defensive or not – it only matters whether Moscow and Beijing believe they are. This so-called security dilemma has considerable consequences for missile-defence and the global balance of strategic nuclear forces[49]. Significantly, both Russia and China have responded negatively towards the Bush administration's revival of BMD, going as far as to issue a joint declaration condemning missile-defence as an attempt by the US to “seek unilateral military and security advantages that will pose the most grave, adverse consequences”[50]. China is especially concerned that the adjunct of BMD to the already superior nuclear capabilities of the US will leave the PRCs twenty nuclear ICBMs ineffective as a deterrent[51].

It is certainly possible that the tensions created by the US commitment to missile-defence could lead to the emergence of offence-defence arms racing amongst established nuclear powers, or at the very least cause a breakdown of arms control negotiations. During the recent New START talks BMD proved to be a contentious issue. The Russian delegation asserted any new agreement “may be effective and viable only in conditions where there is no qualitative or quantitative build-up in [US BMD] such that it would give rise to a threat to Russia's strategic nuclear force potential”[52]. In a similar vein, there is evidence to suggest that the Chinese have, in light of US BMD, instigated a re-assessment of the utility of maintaining a posture of *‘minimum deterrence’*[53]. In order to counter the impact of an American BMD system the PRC is actively pursuing the expansion of its strategic missile stockpile and may consider MiRVing its warheads in the future[54]. An often overlooked corollary of such an *‘action-reaction cycle’*

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between China and the US is the impact it will have on the strategic balance in South Asia. As Newhouse explains – “if China’s upgrade enlarges its threat to India”, then “India will expand its forces accordingly” and “Pakistan will follow suit”[55].

The deployment of a US missile-shield, therefore, could undermine existing arms regimes, regionally and globally, and in doing so greatly increase the prospect of vertical proliferation and thus international instability.

Conclusion

The Bush administration’s support for missile-defence was motivated by a desire to maintain freedom of action, and thus unipolar hegemony, vis-à-vis ostensibly un-deterrable rogue states. If technological advancements and globalisation made the spread of WMD technology to malign regimes inevitable, then the parallel RMA made the development of BMD more feasible, and as such necessary. However, it is evident that BMD is strategically flawed, technically disputed and has the potential to destabilise existing arms dynamics. Rather than counteracting the dangers presented by the spread of nuclear and ballistic missile technology to aggressive states, the deployment of BMD, when placed in the wider context of the NPR and NSS, may actually *increase* the prospects of horizontal and vertical proliferation and the likelihood of a nuclear exchange, whilst providing minimal protection from these heightened threats.

The story of the search for effective missile-defences is to all intents and purposes the story of the search for a way out of the logic of the thermonuclear revolution. Although this is a noble goal to aspire to, it is fraught with conceptual and practical difficulties. If, in the age of ICBMs and hydrogen bombs, statesmen wish to avoid the perils of nuclear politics and nuclear war itself, then they are faced with two options – one potentially unworkable in the anarchical system and the other unpalatable, dangerous and even immoral. They can forsake the security conferred by nuclear weapons and follow the path of disarmament, or they can accept that ultimately, in the thermonuclear age, a state’s insecurity is the source of its security. It is not a stretch of the imagination to understand why many have tried to negotiate a third option.

Bibliography

Blinken AJ ‘From Pre-Emption to Engagement’ pp.33-60 in ‘Survival, No.4, Winter 2003-2004’

Bowen WQ ‘Missile Defence and the Transatlantic Security Relationship’ pp.485-507 in ‘International Affairs, 77, 3, 2001’

Bush GW ‘A Period of Consequences’, speech at the Citadel, South Carolina, 23rd September 1999, www.citadel.edu/pao/addresses/pres_bush.html (accessed 10th March 2011)

Cimbala SJ ‘Nuclear Weapons in the Twenty-First Century: From Simplicity to Complexity’ pp.267-281 in ‘Defence and Security Analysis, Vol 21, No 3, September 2005’

Cordesman AH ‘Strategic Threats and National Missile Defences: Defending the US Homeland’ (Praeger Publishers, London, 2002)

Coyle PE ‘The Limits and Liabilities of Missile Defence’, Centre for Defence Information, November 2006, www.cdi.org/friendlyversion/printversion.cfm?documentID=3725&from_page=../program/document.cfm (accessed 11th March 2011)

Craig C ‘American Power Preponderance and the Nuclear Revolution’ pp.27-44 in ‘Review of International Studies, 35, 2009’

Craig C and F Logevall ‘America’s Cold War: The Politics of Insecurity’ (Harvard University Press, London, 2009)

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Written by James Chisem

- Freedman L 'Adelphi Paper 318: The Revolution in Strategic Affairs' (Oxford University Press, Oxford, 1998)
- Galbraith E 'United States Policy for Missile Defence' pp.16-18 in 'International Missile Defence? Opportunities, Challenges and Implications for Europe' edited by R Ranger et.al (The Royal United Services Institute for Defence Studies, London, 2002)
- Garrison D 'Bracing for Armageddon: Why Civil Defence Never Worked' (Oxford University Press, Oxford, 2006)
- Gavin FJ 'Same As It Ever Was: Nuclear Alarmism, Proliferation, and the Cold War' pp.7-37 in 'International Security, Vol.34, No.3, Winter 2009/2010'
- Gerson MS 'No First Use: The Next Step for US Nuclear Policy' pp.7-47 in 'International Security, Vol.35, No.2, Fall 2010'
- Gormley DM 'Missile Defence Myopia: Lessons From the Iraq War' pp.61-86 in 'Survival, Vol.45, No.4, Winter 2003-2004'
- Hentz JJ 'The Paradox of Stability and Instability: United States Primacy, China and the National Missile Defence Debate' pp.293-299 in 'Defence and Security Analysis, 19:3, 2003'
- Heurlin B 'Missile-Defence in the United States' pp.56-83 in 'Missile Defence: International, Regional and National Implications' edited by B Heurlin and S Rynning (Routledge, London, 2005)
- Hildreth SA 'Missile Defence: The Current Debate - CRS Report for Congress' (Library of Congress, Washington DC, 2005) <http://www.fas.org/sgp/crs/weapons/RL31111.pdf> (accessed 5th March 2011)
- Jervis R 'Perception and Misperception in International Politics' (Princeton University Press, Princeton, 1976)
- Jervis R 'The Meaning of the Nuclear Revolution: Statecraft and the Prospect of Armageddon' (Cornell University Press, London, 1989)
- Joffe J and JW Davis 'Less Than Zero: Bursting the Disarmament Bubble' pp.7-13 in 'Foreign Affairs, Volume 90, No.1, January/February 2011'
- Karp A 'The New Indeterminacy of Deterrence and Missile Defence' pp.63-81 in 'Deterrence and the New Global Security Environment' edited by IR Kenyon et.al (Routledge, London, 2006)
- Kartchner KM 'Implementing Missile Defence' pp.69-84 in 'Nuclear Transformation: The New US Nuclear Doctrine' edited by JJ Wirtz and JA Larsen (Palgrave Macmillan, Basingstoke, 2005)
- Mearsheimer J 'The Case for a Ukrainian Nuclear Deterrent' pp.50-66 in 'Foreign Affairs, Vol.72, No.3, Summer 1993'
- Mowthorpe M 'The Militarisation and Weaponisation of Space' (Lexington Books, Maryland, 2004)
- Nacht M 'The Politics: How Did We Get Here?' pp.3-11 in 'Contemporary Nuclear Debates: Missile Defence, Arms Control, and Arms Races in the Twenty-First Century' edited by ATJ Lennon (The MIT Press, Massachusetts, 2002)
- Newhouse J 'The Missile Defence Debate' pp.97-109 in 'Foreign Affairs, Volume 80, No.4, July/August 2001'
- Palmore J 'US Ballistic Missile Defence and China' p.369-375 in 'Defence and Security Analysis, 19:4, 2003'
- Peoples C 'Justifying Ballistic Missile Defence: Technology, Security and Culture' (Cambridge University Press,

Why was BMD so attractive to the Bush administration?

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Cambridge, 2010)

Roberts B et.al 'China: The Forgotten Nuclear Power' pp.53-63 in 'Foreign Affairs, Volume 79, No.4, July/August 2000'

Rumsfeld DH 'Transforming the Military' pp.20-32 in 'Foreign Affairs, Vol.81, No.3, May-June 2002'

Russel JA and JJ Wirtz 'United States Nuclear Strategy in the 21st Century' pp91-108 in 'Contemporary Security Policy, Vol.25, No.1, April 2004'

Slessor AM et.al 'Countermeasures: A Technical Evaluation of the Operational Effectiveness of the Planned US National Missile Defence System' (Union of Concerned Scientists/MIT Security Studies Programme, Boston, 2000) http://www.ucsusa.org/assets/documents/nwgs/cm_all.pdf (accessed 12 March 2011)

Statement of the Honourable Douglas J Feith, Undersecretary of Defence for Policy, Senate Armed Services Committee Hearing on the Nuclear Posture Review, February 14 2002 <http://www.wslfweb.org/docs/npr/feith.pdf> (accessed 8th March 2011)

The White House 'National Security Strategy for the United States, September 2002'

Thielmann G 'Strategic Missile Defence: A Threat to Future Nuclear Arms Reductions?' The Arms Control Association, Threat Assessment Brief, January 26th 2011, http://www.armscontrol.org/system/files/TAB_StrategicMissileDefense_ThreattoFutureNuclearArmsReduction.pdf (accessed 13th March 2011)

Waltz KN 'Nuclear Myths and Political Realities' pp.731-745 in 'American Political Science Review, Vol.84, No.3, September 1990'

Waltz KN and S Sagan 'The Spread of Nuclear Weapons: A Debate' (WW Norton and Company, London, 1995)

Wolfowitz P, 'Missile Wars', interview for PBS Frontline, 12th June 2002, www.pbs.org/wgbh/pages/frontline/shows/missile/interviews/wolfowitz.html (accessed 10th March 2011)

[1] Hildreth SA 'Missile Defence: The Current Debate - CRS Report for Congress' (Library of Congress, Washington DC, 2005) p.2 <http://www.fas.org/sgp/crs/weapons/RL31111.pdf> (accessed 5th March 2011)

[2] Garrison D 'Bracing for Armageddon: Why Civil Defence Never Worked' (Oxford University Press, Oxford, 2006) p.140

[3] Craig C and F Logevall 'America's Cold War: The Politics of Insecurity' (Harvard University Press, London, 2009) p.315-317

[4] Cimbala SJ 'Nuclear Weapons in the Twenty-First Century: From Simplicity to Complexity' pp.267-281 in 'Defence and Security Analysis, Vol 21, No 3, September 2005' p.268

[5] Nacht M 'The Politics: How Did We Get Here?' pp.3-11 in 'Contemporary Nuclear Debates: Missile Defence, Arms Control, and Arms Races in the Twenty-First Century' edited by ATJ Lennon (The MIT Press, Massachusetts, 2002) p.4-6

[6] Peoples C 'Justifying Ballistic Missile Defence: Technology, Security and Culture' (Cambridge University Press, Cambridge, 2010) p1-2

[7] *A multi-layered system is designed to intercept ICBMs during their Boost, Mid-Course and Terminal phases.*

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A multi-platform system combines land, sea, air and space based elements. Mowthorpe M 'The Militarisation and Weaponisation of Space' (Lexington Books, Maryland, 2004) p.173 and p.195-196

[8] Russel JA and JJ Wirtz 'United States Nuclear Strategy in the 21st Century' pp91-108 in 'Contemporary Security Policy, Vol.25, No.1, April 2004' p.91-94 and p.97-100, Also see Galbraith E 'United States Policy for Missile Defence' pp16-18 in 'International Missile Defence? Opportunities, Challenges and Implications for Europe' edited by R Ranger et.al (The Royal United Services Institute for Defence Studies, London, 2002) p.17

[9] The White House 'National Security Strategy for the United States, September 2002' p.13-15, and Statement of the Honourable Douglas J Feith, Undersecretary of Defence for Policy, Senate Armed Services Committee Hearing on the Nuclear Posture Review, February 14 2002 <http://www.wslfweb.org/docs/npr/feith.pdf> (accessed 8th March 2011)

[10] Rumsfeld DH 'Transforming the Military' pp.20-32 in 'Foreign Affairs, Vol.81, No.3, May-June 2002' p.25 and p.29 and Gavin FJ 'Same As It Ever Was: Nuclear Alarmism, Proliferation, and the Cold War' pp.7-37 in 'International Security, Vol.34, No.3, Winter 2009/2010' p.9

[11] Peoples C 'Justifying Ballistic Missile Defence' p.215-221

[12] Peoples C 'Justifying Ballistic Missile Defence' p.219

[13] Karp A 'The New Indeterminacy of Deterrence and Missile Defence' pp.63-81 in 'Deterrence and the New Global Security Environment' edited by IR Kenyon et.al (Routledge, London, 2006) p.66

[14] Bowen WQ 'Missile Defence and the Transatlantic Security Relationship' pp.485-507 in 'International Affairs, 77, 3, 2001' p.486

[15] Russel JA and JJ Wirtz 'United States Nuclear Strategy in the 21st Century' p.93

[16] Jervis R 'The Meaning of the Nuclear Revolution: Statecraft and the Prospect of Armageddon' (Cornell University Press, London, 1989) p.74-107 and Gavin FJ 'Same As It Ever Was' p.11-14

[17] The White House 'National Security Strategy for the United States' p.15

[18] Karp A 'The New Indeterminacy of Deterrence and Missile Defence' p.63

[19] Rumsfeld DH 'Transforming the Military' p.27

[20] Russel JA and JJ Wirtz 'United States Nuclear Strategy in the 21st Century' p.101

[21] Hentz JJ 'The Paradox of Stability and Instability: United States Primacy, China and the National Missile Defence Debate' pp.293-299 in 'Defence and Security Analysis, 19:3, 2003' p.293-294

[22] Craig C 'American Power Preponderance and the Nuclear Revolution' pp.27-44 in 'Review of International Studies, 35, 2009' p.31-32

[23] see Mearsheimer J 'The Case for a Ukrainian Nuclear Deterrent' pp.50-66 in 'Foreign Affairs, Vol.72, No.3, Summer 1993'

[24] Waltz KN and S Sagan 'The Spread of Nuclear Weapons: A Debate' (WW Norton and Company, London, 1995) p.12-13

[25] Waltz KN 'Nuclear Myths and Political Realities' pp.731-745 in 'American Political Science Review, Vol.84,

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No.3, September 1990' p.739

[26] Heurlin B 'Missile-Defence in the United States' pp.56-83 in 'Missile Defence: International, Regional and National Implications' edited by B Heurlin and S Rynning (Routledge, London, 2005) p.66

[27] see Blinken AJ 'From Pre-Emption to Engagement' pp.33-60 in 'Survival, No.4, Winter 2003-2004' p.37 and Craig C 'American Power Preponderance and the Nuclear Revolution' p.41

[28] Blinken AJ 'From Pre-Emption to Engagement' p.39-40

[29] Russel JA and JJ Wirtz 'United States Nuclear Strategy in the 21st Century' p.101-102

[30] Gerson MS 'No First Use: The Next Step for US Nuclear Policy' pp.7-47 in 'International Security, Vol.35, No.2, Fall 2010' p.35-37

[31] Joffe J and JW Davis 'Less Than Zero: Bursting the Disarmament Bubble' pp.7-13 in 'Foreign Affairs, Volume 90, No.1, January/February 2011' p.11

[32] Freedman L 'Adelphi Paper 318: The Revolution in Strategic Affairs' (Oxford University Press, Oxford, 1998) p.6

[33] Mowthorpe M 'The Militarisation and Weaponisation of Space' p.166-167

[34] Freedman L 'Adelphi Paper 318: The Revolution in Strategic Affairs' p.7-11 and Mowthorpe M 'The Militarisation and Weaponisation of Space' p.171

[35] Peoples C 'Justifying Ballistic Missile Defence' p.181-185

[36] Hildreth SA 'Missile Defence: The Current Debate - CRS Report for Congress' p.13-14 and Bush GW 'A Period of Consequences', speech at the Citadel, South Carolina, 23rd September 1999, www.citadel.edu/pao/addresses/pres_bush.html (accessed 10th March 2011)

[37] Wolfowitz P, 'Missile Wars', interview for PBS Frontline, 12th June 2002, www.pbs.org/wgbh/pages/frontline/shows/missile/interviews/wolfowitz.html (accessed 10th March 2011)

[38] Gormley DM 'Missile Defence Myopia: Lessons From the Iraq War' pp.61-86 in 'Survival, Vol.45, No.4, Winter 2003-2004' p.61-62

[39] Coyle PE 'The Limits and Liabilities of Missile Defence', Centre for Defence Information, November 2006, www.cdi.org/friendlyversion/printversion.cfm?documentID=3725&from_page=../program/document.cfm (accessed 11th March 2011)

[40] see Table 6.1, Kartchner KM 'Implementing Missile Defence' pp.69-84 in 'Nuclear Transformation: The New US Nuclear Doctrine' edited by JJ Wirtz and JA Larsen (Palgrave Macmillan, Basingstoke, 2005) p.74

[41] Coyle PE 'The Limits and Liabilities of Missile Defence'

[42] Hildreth SA 'Missile Defence: The Current Debate - CRS Report for Congress' p.11

[43] Hildreth SA 'Missile Defence: The Current Debate - CRS Report for Congress' p.12

[44] Slessor AM et.al 'Countermeasures: A Technical Evaluation of the Operational Effectiveness of the Planned US National Missile Defence System' (Union of Concerned Scientists/MIT Security Studies Programme, Boston, 2000) p.59 http://www.ucsus.org/assets/documents/nwgs/cm_all.pdf. (accessed 12th March 2011)

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- [45] Gormley DM 'Missile Defence Myopia: Lessons From the Iraq War' p.62 and p.72-73
- [46] Hildreth SA 'Missile Defence: The Current Debate – CRS Report for Congress' p.3
- [47] Russel JA and JJ Wirtz 'United States Nuclear Strategy in the 21st Century' p.94-95
- [48] Hentz JJ 'The Paradox of Stability and Instability' p.295-296
- [49] see Jervis R 'Perception and Misperception in International Politics' (Princeton University Press, Princeton, 1976) p.75-76
- [50] Cordesman AH 'Strategic Threats and National Missile Defences: Defending the US Homeland' (Praeger Publishers, London, 2002) p.108
- [51] Roberts B et.al 'China: The Forgotten Nuclear Power' pp.53-63 in 'Foreign Affairs, Volume 79, No.4, July/August 2000' p.58
- [52] Thielmann G 'Strategic Missile Defence: A Threat to Future Nuclear Arms Reductions?', The Arms Control Association, Threat Assessment Brief, January 26th 2011, p.5 http://www.armscontrol.org/system/files/TAB_StrategicMissileDefense_ThreattoFutureNuclearArmsReduction.pdf (accessed 13th March 2011)
- [53] Roberts B et.al 'China: The Forgotten Nuclear Power' p.56
- [54] Palmore J 'US Ballistic Missile Defence and China' p.369-375 in 'Defence and Security Analysis, 19:4, 2003' p.373 and Roberts B et.al 'China: The Forgotten Nuclear Power' p.56
- [55] Newhouse J 'The Missile Defence Debate' pp.97-109 in 'Foreign Affairs, Volume 80, No.4, July/August 2001' p.107

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