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EXERCISE/EXERCICE New Horizons  
**National Missile Defense**

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### Abstract

*National Missile Defense (NMD) is something the US is pursuing with much vigor. Historically, the nation relied on a concept called “mutually assured destruction” (MAD) to keep the nuclear weapon equation in balance. This strategic theory caused the US and the USSR to enter an uncontrollable arms race.*

*Today’s political landscape is causing a re-thinking of MAD. The proliferation of nuclear weapons to new nations coupled with deteriorating command and control of nuclear weapons in Russia will force the US to pursue NMD. The options to acquire missile defence include building a treaty reliant site while perfecting the technology required for future sites, developing missile defence technology and sharing it with the original members of the nuclear elite, and lastly trading a build-up in missile defences for deeper cuts in offensive weapons. All of these options will meet the aim of protecting America’s citizens, but establishing a single treaty compliant site is the recommended option.*

Change is taking place at a rapid pace and rules that once defined the world are questionable. As civilization struggles to determine a paradigm suitable for the information age, in the realm of military affairs world governments are still relying on industrial age thinking to define what is acceptable. The most devastating weapon ever known to man was employed against the Japanese in summer of 1945. The effects were horrible; huge population centers destroyed not the consequence of collateral damage, but the target of attack. Since then no nation has dared use the awesome power of nuclear weapons.

During the genesis of nuclear weapons no coherent plan existed to stem their proliferation. The two superpowers, the USSR and the USA, seemed destined to engage in an arms race that would be the world's undoing. Two popular strategies existed to stop these two nations from escalating their arsenals to elevated levels: offence and defence. The offensive strategy called for nations competing to have the largest arsenal thereby deterring nuclear aggression while the defensive strategy relied on nations protecting themselves by anti-missile means. Unfortunately, the former was adopted and thus began a race that has taken decades to reverse while the defensive strategy was quickly discarded as being too difficult and expensive an option.

Segues to the year 2001, nuclear weapons have proliferated to more than a handful of nations with little hope of this trend slowing in the future. The offensive strategy dealing with mutually assured destruction is not relevant in a world in which Iraq, North Korea, and Israel possess nuclear weapons. The break-up of the Soviet Union means the relatively responsible government of Russia no longer controls its nuclear weapons. The Ukraine, Kazakhstan and Byelorussia each now have sizable arsenals of nuclear

weapons.<sup>1</sup> The offensive strategy that once defined the nuclear arena is no longer valid. The time has come for the USA to pursue a strategy of defence. The threat of nuclear blackmail from rogue nation such as Iraq or North Korea could render our nation impotent. An accidental nuclear missile launch from one of the former Soviet Republics though not probable, is not impossible. To protect the nation in the event of accidental or planned nuclear missile launches the USA must pursue a National Missile Defense System.

### **Dawn of an Era**

The United States began its missile defence programme in response to the German missile program that included the V-2. This initial programme also planned for the development of intercontinental ballistic missiles (ICBMs). The different Services within the Department of Defense were conducting rival programmes that encouraged competition mainly between the Army and Air Force. The then Secretary of State delegated the Army as executive agent.<sup>2</sup>

The Soviets were also aggressively pursuing a missile defence programme and in 1961 achieved a successful intercept of a dummy ICBM. The success of the Soviet missile defence tests, coupled with the launch of Sputnik, caused the Americans to pursue missile defence with a renewed sense of urgency.<sup>3</sup> The following year the Americans were successful with a missile intercept of their own and the US Army immediately lobbied for a National defence system.<sup>4</sup>

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<sup>1</sup> McMahon, K. Scott. *Pursuit of the Shield*. Lanham: University Press of America, p106.

<sup>2</sup> Ibid, p13.

<sup>3</sup> Ibid, p14.

<sup>4</sup> Ballistic Missile Defense Organization Homepage (BMDO).

One of the first acts of Kennedy's Secretary of Defense, Robert McNamara, was the insistence that any decision to pursue missile defence be made within the overall context of American strategic policy. Secretary McNamara was seeking to convince the administration to adopt a policy of mutually assured destruction as the way to deter nuclear war.<sup>5</sup> The Soviets followed a different agenda and by the mid 1960s began construction of the *Galosh* anti-ballistic missile (ABM) site in Moscow.<sup>6</sup> In light of this President Johnson decided to deploy a similar system, *Sentinel*. It was designed to provide protection against a light missile attack. However, the arguments against the system were numerous. It was thought that Sentinel would cause the increased targeting of defended cities in hopes of overwhelming the system. For a defensive system to work it must be 100% effective or it becomes a liability. Additionally, acquiring a defensive system will drive other nations to think that the US is trying to obtain first strike capability.<sup>7</sup> President Nixon subsequently changed the focus of the original system from protection of the general population to protection of the nuclear launchers. This shift in focus was the motive for the name change to *Safeguard*.

The Strategic Arms Limitation Talks (SALT) of 1969 served as the impetus for the ABM Treaty of 1972.<sup>8</sup> This restricted each nation to two ABM sites of up to 100 interceptors each and prohibited either nation from developing, testing, or deploying sea, air, space, or mobile land ABM systems.<sup>9</sup> Only two short years later, a protocol reduced the number of allowable ABM sites each side could deploy to one. In 1976 the Safeguard site became operational, but a few short months later Congress directed the site

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<sup>5</sup> BMDO Homepage.

<sup>6</sup> McMahan, K. Scott. *Pursuit of the Shield*. Lanham: University Press of America, p18.

<sup>7</sup> Ibid, p48.

<sup>8</sup> BMDO Homepage.

closed. It was concerned that the US missiles required a nuclear warhead to successfully conduct interception.<sup>10</sup>

By the time Ronald Reagan was inaugurated as President many analyst had become concerned that the Soviets had obtained a first strike capability because of the vast improvements to their offensive arsenal. This caused the Department of Defense to recommend to the President that greater emphasis needed to be placed on defensive capabilities. After intense study the Strategic Defense Initiative (SDI) Organization was established and this time the President directed that the Air Force be made executive agent for missile defence.<sup>11</sup> President Reagan's motivation to pursue missile defence was simple: SDI would give presidents more flexibility when dealing with crises, set a more palatable precedence – “defending rather than avenging lives”, and exploit the US' technological advantage over the USSR.<sup>12</sup>

In 1990, Saddam Hussein invaded Kuwait and five months later a coalition led by the US initiated Operation Desert Storm. The coalition was tenuous for two reasons, first, Arab nation was fighting Arab nation, and second, the major player, the US had a strong relationship with Israel, the common enemy of the Arab world. Two important milestones mark this arduous period. First, in an attempt to divide the coalition Saddam Hussein used ballistic missiles as terror weapons threatening to employ them with chemical agents.<sup>13</sup> That several coalition countries possessed WMD did little to deter his first use of ballistic missiles. It also showed that adversaries with WMD were not limited to Communist countries. On the contrary, nations like Iraq posed a threat to the US.

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<sup>9</sup> McMahon, K. Scott. *Pursuit of the Shield*. Lanham: University Press of America, p49.

<sup>10</sup> BMDO Homepage

<sup>11</sup> Ibid.

<sup>12</sup> Denoon, David. *Ballistic Missile Defense in the Post-Cold War Era*. Boulder: Westview Press, p97.

“With the help of Allah, we shall rid the world of American influence. Our missile cannot reach Washington, but if they could, we would hit there as necessary.”<sup>14</sup> Second, it was the first time that a missile defence system successfully engaged a ballistic missile under operational conditions.<sup>15</sup> This finally proved that missile defence technology was not a dream, but within reach.

### **The Current WMD Threat to the USA**

To understand the present WMD threat to the US one must comprehend the political military landscape of the last decade. Beginning with the Kremlin *coup d’etat*, the 90s were a period that clearly outlined the threat to the US. In 1991, when General Secretary Gorbachev’s inner circle including Prime Minister Yazov and Vice President Yanayev, declared that they had removed the leader, control of Soviet strategic forces fell into question.<sup>16</sup> This was the second time in less than two years, the first being Tiananmen Square, that the West questioned the strategic weapon command and control of the Communist World.<sup>17</sup>

The breakup of the Soviet Union raised the same question again. With the Ukraine, Kazakhstan, and Byelorussia declaring independence the issue took on a more permanent tone. These three breakaway republics possess 1,656, 1,410, and 81 nuclear weapons respectively. The ability of safeguarding against accidental launch was questionable when the USSR had total control of their strategic forces; now that republics such as Kazakstan possessed nuclear weapons the threat of accidental launch increases

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<sup>13</sup> Schwarzkopf, H. Norman. *It Doesn't Take a Hero*. New York: Bantam Books, p483.

<sup>14</sup>McMahon, K. Scott. *Pursuit of the Shield*. Lanham: University Press of America p57.

<sup>15</sup> Ibid, p. 59.

<sup>16</sup> Ibid, p103.

<sup>17</sup> Ibid.



significantly.<sup>18</sup> These command and control issues are not the only reasons of concern for the US.

The production of fissile material was once the domain of only the most technologically advanced nations. Nations have basically two major avenues of approach if they wish to obtain nuclear weapons. First, they may choose to develop these weapons "in-house" using indigenous talent augmented by mercenary scientists from the once prominent USSR. Secondly, a nation could sign the Non-Proliferation Treaty bringing a myriad of nuclear technical support. The latter would be the fastest approach to obtain the "know-how" but it brings with it a host of mandatory inspections by the International Atomic Energy Agency unless a nation can somehow circumvent the inspection process.<sup>19</sup> Both South Africa and Iraq are examples of accepting safeguards and receiving knowledge to build weapons while keeping inspection teams comprised of the world's major powers from discovering their clandestine programs. North Korea, on the other hand, has employed a hybrid approach using a combination of accepting safeguards and conducting "in-house" development.<sup>20</sup>

The international community's ability to control national chemical and biological weapon programmes is much more difficult than controlling nuclear weapon programmes. Development capability must be assumed for any nation with the most rudimentary scientific infrastructure. Also it is virtually impossible to verify that a nation is not pursuing this type of program. Iraq, for example, hid their biological weapons programme from aggressive UN inspectors for four years. These types of programmes

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<sup>18</sup>McMahon, K. Scott. *Pursuit of the Shield*. Lanham: University Press of America, p106.

<sup>19</sup> Ibid, p130.

<sup>20</sup> Ibid, p138-140.

are difficult to verify because many of ingredients used to create these types of weapons of mass destruction often have benign alternate purposes.<sup>21</sup>

A study headed by former and current Secretary of Defense Donald Rumsfeld found that a missile attack from a so-called rogue state was not a distant threat and could happen sooner than anticipated. At the moment, Iraq, Lybia, and North Korea are on the brink of acquiring the capability for such an attack.<sup>22</sup> Secretary Rumsfeld's findings were in direct contradiction to the National Intelligence Council's deduction that no country, other the declared nuclear powers, would be able to threaten the US with WMD for a minimum of fifteen years.<sup>23</sup> As if on cue to add credence to Rumsfeld's findings, North Korea successfully tested a three-stage missile over Northern Japan.<sup>24</sup>

A cursory investigation of world ballistic missile programmes reveals several systems with either the capability to strike at the US or to strike in the not so distant future is a reality: China's CSS-4 (DF-5) and India's Syria missile have a range of 12,000 kms, and estimates put the range of North Korea's Taepo-Dong-2 at 6,000 kms.<sup>25</sup> This is not an exclusive club, as countries such as Iraq, Brazil, Egypt, Iran, Pakistan, and Syria possess missiles with ranges in the high hundreds. It is just a matter of time until this not so elite club will be able to strike the US.

### **NMD the Way to Mitigate WMD Threat**

The dangers posed by poor control and proliferation of nuclear weapons are very real. During the Cold War the offensive aspect of nuclear weapons perversely guaranteed that the superpowers would not employ their massive arsenals. They engaged in a strategy

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<sup>21</sup> McMahon, K. Scott. *Pursuit of the Shield*. Lanham: University Press of America, p142-3.

<sup>22</sup> Isaacs, John. "Rumbles from Rumsfeld." *Bulletin of the Atomic Scientists*, p16.

<sup>23</sup> *Ibid.*

<sup>24</sup> BMDO Homepage.

called 'mutually assured destruction' (MAD) or nuclear stalemate. If this strategy of deterrence failed then the US would cease to exist functionally, but not before it launched a massive counter-strike against the Soviet Union. Secretary of Defense McNamara believed that MAD was an unchangeable truism. He argued that MAD made nuclear holocaust an unacceptable option for either superpower and stressed that missile defence would be ineffective without huge civil defence efforts.<sup>26</sup> One needs only to look back at the preceding fifty years to determine that the 1972 ABM Treaty and MAD were effective in preventing nuclear war between the US and the USSR. However, nuclear weapons are no longer the exclusive domain of these two nations. The ABM Treaty between the US and countries comprising the former Soviet Union must be renegotiated to include the freshmen nuclear powers if hope remains for the status quo. A treaty aimed at controlling the nuclear arsenals of two superpowers is no longer valid in a world where nuclear membership is not restricted to a few. What is accomplished by limiting the capability of two nations that have proven nuclear responsibility while not restricting the arsenals of countries without proven track records?

In examining the strategy of MAD, it can quickly be determined that it is not a feasible strategy with the new nuclear states. The MAD philosophy is based on a common start point, that is to say that destruction is mutually assured. Neither Iraq, North Korea, nor Libya have the comparable arsenals of US or Russia. Additionally, these new comers to the nuclear club cannot be counted on to play by the predictable rules of deterrence. Even Secretary McNamara, the champion of deterrence, foresaw the potential for lesser

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<sup>25</sup> McMahan, K. Scott. *Pursuit of the Shield*. Lanham: University Press of America, p316-8.

<sup>26</sup> Ibid, p25.

nuclear powers, at the time China, to mount an unsophisticated attack despite of MAD and testified in support of missile defence before Congress.<sup>27</sup>

National Missile Defense is a way the US can mitigate the risks associated with today's weapons of mass destruction (WMD) landscape. To provide a secure environment for its citizens, to deter the threat of nuclear blackmail from a rogue nation such as Iraq or North Korea, and to prevent an accidental launch from reaching the US, it is now time to concentrate our energy on obtaining an NMD.

Industry experts have estimated that 5-8 years of intense research and development are required to produce a sophisticated missile defence system. If the US wants to possess National missile defence capability to counteract missile development in the less developed world then it must begin a concerted effort immediately. Training crews is one of the main nodes along the critical path of development. It is an arduous task with operational equipment, but an impossible one with missile defence prototypes. An additional time consuming activity is training the requisite number of crews and keeping them current. Lastly, the US will have to wrestle with its National Security Strategy. Rethinking a strategy that relies solely on deterrence will require deep thought and therefore take time.<sup>28</sup>

### **Obstacle and Counter Arguments to Pursuing NMD**

Many obstacles and counter arguments exist that could potentially derail President Bush's pursuit of NMD; they include: the ABM Treaty of 1972; former President Clinton's legacy "3+3" policy; relations with Russia, China, and allies; political pressure to reap the benefits of the so-called peace dividend; and the realization that defence will

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<sup>27</sup> McMahon, K. Scott. *Pursuit of the Shield*. Lanham: University Press of America, p25.

<sup>28</sup> Denoon, David. *Ballistic Missile Defense in the Post-Cold War Era*. Boulder: Westview Press, p174.

always be challenged by improvements in offence. Of the many challenges to the development of a defensive system none has received more publicity than the 1972 ABM Treaty. This Treaty has served the world well over the past three decades and it will be very difficult to convince not only Russia but also our allies that rewriting or abolishing the treaty is a good idea. There are already grumblings from the US' closest allies that ignoring or renegotiating the ABM is bad idea. On a recent visit to Canada, President Putin outlined his concern for the US's pursuit of NMD. He and Prime Minister Chretien displayed a front of solidarity by jointly publishing a communiqué stating that the ABM Treaty was the basis of strategic stability.<sup>29</sup> However coupled with the argument that the Treaty is no longer valid, Russia is proposing a compromise position. Recently, President Putin, understanding that it will be very difficult to stop US public consensus for a NMD, stated that he might be prepared to consider lower offensive nuclear level cuts for Russia to offset the US advantage that would be gained by NMD.<sup>30</sup> In offering this compromise position, President Putin potentially breaks down the most controversial roadblock to NMD leaving President Bush to deal with former President Clinton's legacy "3+3" policy.

This policy is wrought with failure from its inception. The policy assumes that the US will take three years to develop an NMD system and three years to field the system. This highly compressed timeline allows for only limited testing and experts say the timeline is unrealistic.<sup>31</sup> The Government Accounting Office, the watchdog group employed by Congress, noted that "3+3" was very optimistic in light of other Department of Defense

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<sup>29</sup>Brooke, James. "Putin Pays a Visit to Canada, Winning Support on Missile Issue," N.Y. Times, pA7.

<sup>30</sup>Tyler, Patrick. "With U.S. Missile Defense, Russia Wants Less Offense," The N.Y. Times, pA16.

<sup>31</sup>Peters, Katerine McIntire. "Incoming!," Government Executive. p20.

weapon acquisition programmes.<sup>32</sup> Although the threat is imminent, evidenced by the successful test of the Taepong-Dong-2, the artificial constraints of three years to develop and three years to field a system should not be placed on NMD. On a compressed schedule, achieving the required R&D, integration, and testing, as well as finding suitable contractors represents a high risk.<sup>33</sup> The “3+3” plan was predicated on increased spending to shorten the acquisition timeline. This proposed increase came at a time when most other nations were reducing their defence budgets.

During a time when nations are lowering defence budgets to reap the benefits of the so-called peace dividend, the US has spent \$50 B to develop NMD.<sup>34</sup> Some analysts use this fact to imply that the US is not a benign superpower. This argument is however one of scale. The US defence budget is in excess of \$300 B. NMD expenditures currently represent just above 1% of the annual defence budget.<sup>35</sup> Surely 1% of the US military’s resources does not represent an excessive expenditure when the defence of the civilian population is at stake. Additionally, cost estimates for the 1970s Safeguard missile system are \$23 B in year 2000 dollars.<sup>36</sup> As the price of weapons systems have increased exponentially the increase to defend against those systems has not risen accordingly.

The final obstacle to the procurement of NMD is the argument that contends that any advance in defensive capability will be rendered moot by less costly developments in offensive capabilities. The fallacy of this position is the cost of developing offensive capabilities to defeat a missile defence system. The offensive capability most often

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<sup>32</sup>Peters, Katerine McIntire. “Incoming!” Government Executive. p20.

<sup>33</sup>Ibid.

<sup>34</sup>Bickers, Charles. “Pie in the Sky,” Far Eastern Economic Review. p22.

<sup>35</sup>Denoon, David. *Ballistic Missile Defense in the Post-Cold War Era*. Boulder: Westview Press. p145.

referenced when discussing defeating missile defence systems is penetration aids (PENAIIDs). The idea is that a nation hoping to defeat an NMD type system would first strike with several PENAIIDs to overwhelm the ground based interceptors (GBI) with sheer numbers. The threat nation could then conduct a follow-on attack with WMD relatively confident that the PENAIIDs had defeated the defensive system. Recent studies show that technology is advanced enough so that GBIs can distinguish between PENAIIDs and live warheads mainly by the unique heat signatures of each type of projectile. Likewise, the United Kingdom developed a vast array of PENAIIDs in order to defeat the Russian missile defence system only to find that production was very demanding.<sup>37</sup> If PENAIIDs were effective and cheap to produce it would be logical to assume that several nations would be pursuing that technology. The truth is that PENAIIDs are not effective and are almost as expensive as offensive missiles.<sup>38</sup>

The ABM Treaty of 1972; former President Clinton's legacy "3+3" policy; relations with Russia, China, and allies; political pressure to reap the benefits of the so-called peace dividend, and the realization that defence will always be challenged by improvements in offence are the main counter arguments or obstacles to pursuing NMD. By outlining the relevant points of each argument a picture begins to emerge that favors development of NMD for the US. With it clear that the US should pursue missile defence, let us focus our attention on different ways to achieve that end.

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<sup>36</sup> Mosher, David E. "Understanding the Extraordinary Cost Growth of Missile Defense," *Arms Control Today*. p9.

<sup>37</sup> McMahan, K. Scott. *Pursuit of the Shield*. Lanham: University Press of America. P236.

<sup>38</sup> *Ibid*, p237.

## Alternate Ways to Pursue Missile Defence

There exist many different means to pursue missile defence, this paper will look at three scenarios. All courses of action dictate developing NMD to its full potential, but each deal with the fallout rendered by the counter arguments differently. "...NMD should be viewed essentially like catastrophic health insurance. All individuals hope to avoid devastating health costs, but many are either unwilling or unable to pay for it."<sup>39</sup>

Because of improved intelligence collection techniques and nuclear weapon design proliferation, the US is better able to show that rogue nations have developed sophisticated delivery systems. The systems are capable of not only striking the Continental United States (CONUS), but also much of Europe and Asia.<sup>40</sup> The US must conduct an information campaign stressing that the threat exists today and that a missile defence system is required to counter that threat. Because this is the least palatable of the three outlined options, the US may consider establishing one ABM site at Grand Forks, North Dakota for two reasons. First, a site at Grand Forks, the site of the former Safeguard System, would protect all of CONUS from approximately 30 missiles launched from Russia, China, and the Middle East.<sup>41</sup> Second, by establishing one site with one hundred interceptors the US remains compliant with the 1972 ABM Treaty while pursuing the technology required for a fully operational NMD system. Russia, the main opponent to the US pursuing a missile defence would have no credible argument to counter this option since their ABM system armed with the *Galosh* interceptor has been operational for decades.

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<sup>39</sup>Denoon, David. *Ballistic Missile Defense in the Post-Cold War Era*. Boulder: Westview Press. px.

<sup>40</sup>McMahon, K. Scott. *Pursuit of the Shield*. Lanham: University Press of America. p56.

<sup>41</sup> Ibid, p222.



The second way the US could pursue NMD while limiting opposition is to completely develop a missile defence system and share the technology with the five permanent members of the Security Council. This elite group of nations represents the nuclear powers prior to the ratification of the Non-Proliferation Treaty. This course of action more than any other will erase any doubts with Russia, China, and the European Community that the US is developing NMD to protect itself against rogue nations and accidental launches. This option would require vast quantities of trust and very forward thinking. However, if the US is really solely concerned with attacks from rogue nations and accidental launches and if Russia is only concerned that NMD may spark another arms race then this solution can work.

The last option for developing NMD is to adopt the Russian compromise. Late last year, Russia's President Putin declared that his country may be willing to renegotiate the 1972 ABM Treaty if Washington is willing to accept deep cuts in its nuclear arsenal above and beyond those called for with START II.<sup>42</sup> Russian officials realize that it is nearly impossible to impede the political ground swell in favor of developing a system to protect citizens of the USA from an accidental launch or an attack from a rogue state.<sup>43</sup> The deal to trade a build-up in missile defences for deeper cuts in offensive weapons could have less to do with security concerns and a lot to do with its economic woes. With its economy ready to implode, Russia is in no position to re-enter an arms race with the US.

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<sup>42</sup> Tyler, Patrick E. "With Missile Defense, Russia Wants Less Offense," The N.Y. Times. pA16.

<sup>43</sup> Ibid.

## **Recommendation**

All three courses of action would achieve the ultimate goal of developing an NMD system for the US. The differences lie in the varying degrees of establishing the defence system and retaining a technological edge over the rest of the world. The option that provides the best balance and ultimate solution for the US is the one calling for development of one treaty compliant site. This solution is a win-win situation. First, the US can pursue the technologies for a 100% effective site that it will need in the not so distant future while establishing an interim site capable of protecting a majority of the United States. Second, because one site is compliant with the 1972 ABM Treaty the US can pursue this goal without the strain that it is currently experiencing with Russia, China, and even its allies.

## **Conclusion**

The world is changing at a rapid pace. A new set of rules is challenging the status quo. The world power equation can no longer simply be defined as a sole body of five nations that possess nuclear weapons. Not only has the balance of power shifted on the macro level, leaving only one superpower, but changes have occurred on the micro level as well. Ballistic missile technology has proliferated and several nations now possess sophisticated delivery systems. It is these system that will pose the biggest threat to the USA in the coming years. However, that is not America's only safety concern.

The break-up of the Soviet Union created a huge command and control vacuum. A state with an iron grip on a nuclear arsenal that rivaled the United States' own fell into disarray. The reliable command and control, formally the US' least concern now has become its greatest. With the break-up has come the unintentional proliferation of

nuclear weapons to the Ukraine, Kazakhstan, and Byelorussia. Questionable command and control coupled with less than ideal storage conditions caused by the economic downturn in the former Soviet States sets the perfect conditions for an accidental launch.

The arguments are numerous in favor of the US pursuing a national missile defense system. The counter arguments often made to derail America's pursuit are numerous as well: the ABM Treaty of 1972; former President Clinton's legacy "3+3" policy; relations with Russia, China, and allies; political pressure to reap the benefits of the so-called peace dividend; and the realization that defence will always be challenged by improvements in offence. At first blush these contentions seem valid, but upon closer examination one realizes the fallaciousness of their arguments.

On the basis that a valid threat to the US exists and accepting the fact that counter arguments to pursuing missile defence are fallacious then the rational conclusion is for the US to pursue development of the shield. This paper has outlined three options to achieve that end: develop a ABM Treaty compliant single missile defence site, develop and share missile defence technology, and accept a reduction in offensive capability vis-a-vis the Russians to offset the gains realized by NMD. All of these courses of action will meet the aim, protecting America's citizens, but establishing a single treaty compliant site is the recommended option.

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