US Missile Defence and Space Security: a Security Dilemma for China?

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"One who has few must prepare against the enemy;
One who has many makes the enemy prepare against him" **Sun Tzu**[1]

The United States (U.S.) has been a global superpower for decades and will surely remain so for some time to come. Nevertheless, as is natural in an international system composed of many competing states, one's place on the power ladder is constantly being challenged. Just as the Soviet Union confronted American primacy during the Cold War, a rising China is expected to do so in the future. Well aware of this threat to its dominance, the U.S. is keen to empower its Asian allies and maintain a status quo in terms of Beijing's power position. Ever since the Soviet Union's demise, the U.S. has employed military and security strategies to consolidate its own power and contain that of others. Two critical and indeed linked strategies for this have been Ballistic Missile Defence (BMD) and Space Security. While the U.S. maintains that these strategies are inherently defensive and pose no offensive threat, rival states like China, remain unconvinced and see their own growing influence threatened by a U.S. policy of "containment" (*meiguo dui hua e-zhi zhanlue*).[2]

For many international security analysts, this situation reveals a central problem of international relations – 'the security dilemma.' Put simply, the security dilemma emphasizes "two inescapable predicaments of international politics" – the seeming inability to confidently determine the motives or intentions of others, and the "inherent ambiguity of weapons."[3] When these two quandaries are combined, states often feel no option but to act self-defensively – an act that normally escalates the situation, even if original intention was benign. In line with this logic, it can be claimed that U.S. statements on space security and deployments of BMD systems have sufficiently threatened China as to cause it to act in an escalatory manner.

This paper will therefore analyze whether one can claim that U.S. activities in BMD and space security have indeed initiated a security dilemma for China, and if so, what has been the nature of its response. This paper will focus preeminently on analyzing what the author has deemed to be China's four principle issue areas affected by U.S. BMD and space security policy – (I) the Chinese nuclear deterrent, (II) Taiwanese 'reunification', (III) a growing U.S. Asian security alliance network, and (IV) space security and arms control. This will be followed by an analysis of Chinese reactions, which should help indicate whether China can be said to have reacted in an escalatory manner, and whether therefore, a Sino-U.S. security dilemma can legitimately be claimed to have arisen.

U.S. BMD policy only became a Chinese concern in the late 1990s when the Missile Defense Act (1995) was passed by the then Clinton administration. This Act set in motion moves toward deploying multiple shorter-range theatre missile defense (TMD) systems to protect foreign assets as well as a "multiple site" national missile defense (NMD) system[4] to protect the U.S. from long-range ballistic missile threats. This introduced the Asia-Pacific region to U.S. BMD, and China duly perceived the plans as a potential threat to their 'minimal' nuclear deterrent[5] and a

destabilizing influence on their 'international strategic security environment' (*guoji zhanlue anquan huanjing*).[6] The succeeding Bush administration broadened existing U.S. BMD plans by unilaterally withdrawing from the Anti-Ballistic Missile (ABM) Treaty and funding the development of a 'layered' NMD system utilizing land, sea, air and space-based assets[7] and a network of TMD systems deployed on allied, including Asian, territories.[8] Furthermore, the 2006 U.S. National Space Policy demanded a consolidation of U.S. space dominance and the ability to "deny … adversaries the use of space capabilities hostile to U.S. national interests."[9]

To China, it seemed clear that although the Soviet Union was obsolete, U.S. foreign security policy was still heavily governed by Cold War-era mindsets. Despite the ever-expanding influences of globalization and economic interdependence, the U.S., from a Chinese perspective, was still threatened by a rising China and sought to overwhelm Chinese military power projection capacity, to strategically 'contain' China (*meiguo dui hua e-zhi zhanlue*)[10] by upgrading the U.S. regional security alliance network, and to secure long-term "absolute security"[11] by securing what Huang Zhicheng has termed "a strategic external border in space."[12] Although the current Obama government has taken a less 'imperialist' (*diguo waijiao*)[13] stance on BMD – by limiting the system to what already exists and only expanding shorter-range TMD systems abroad – China is perhaps increasingly concerned, especially at a regional level, as Taiwan, Japan, South Korea and Australia all have, or will soon join an extensive U.S. TMD network in the Asian-Pacific region.

Effect on Chinese Nuclear Deterrence

As long as [China's] nuclear retaliatory capability is credible, China possesses a wider range of military options against both Taiwan and the U.S. than it might otherwise consider if the U.S. can trump Beijing's nuclear response
RADM Michael McDevitt[14]

For China, nuclear weapons are a key instrument for acquiring and maintaining the international stature it deserves.[15] Concurrently though, China conforms to a 'no first-use' policy and a doctrine of what might be called 'minimum ambiguous deterrence,' where nuclear weapons are solely retaliatory instruments[16] and therefore only a minimal arsenal is required. Consequently, the actual size of China's nuclear force is never officially announced, which establishes a "retaliatory capability [that] is psychological rather than real"[17] – a tactic notably espoused by Sun Tzu.[18] Because of its small size, the deployment of BMD in Asia, especially TMD systems in Taiwan and Japan, severely weakens the Chinese nuclear deterrent and its leverage over key regional disputes. In many respects, the disadvantage this produces for Chinese power projection means that for the first time since the 1960s, China is potentially vulnerable to U.S. 'nuclear blackmail' and regional rivals can defend their interests more confidently relative to China's expectations. Furthermore, it is likely that the proliferation of BMD systems to U.S. strategic Asian allies has initiated yet more individual security dilemmas in the region and could instigate a cascade effect of arms buildups.

China regards its regional environment with a rather Waltzian perspective in that it desires an advantageous balance of power that produces regional stability under Chinese terms. As Keohane would emphasize, this 'hegemonic stability' provides China with an environment in which it can grow, expand influence and gain future leverage. Any U.S. BMD system in Asia comprehensively transforms this status quo and lends all advantage to the U.S. Despite American claims that BMD systems in and beyond Asia are not a threat to China, Beijing "cannot base its security on assurances only"[19] and instead regards the deployments as part of an integrated attempt to "softly contain"[20] and 'strategically encircle'[21] China.

Nevertheless, "deterrence is not a static concept" and "'minimal' is a relative term."[22] Having begun over three decades ago, Chinese military modernization has accelerated remarkably since 2000, and qualitative improvements in the scope, mobility and penetration capacity of China's nuclear force could re-establish a strong and viable deterrent. In fact, as will be explained later, this is increasingly the case today under the new Chinese notion of 'informationalized warfare' (*xinxihua tiaojianxia*).[23]

Effect on 'The Taiwan Problem'

If Japan and the United States extend the missile defense system to cover Taiwan, the People's Republic of China will oppose such a move very strongly
Gen. Qinsheng Zhang[24]

Taiwan is a major foreign policy issue for China and has been largely since 1949 when the People's Republic was established. Beijing's 'One China' policy foresees that eventually, Taiwan will 'reunify' with the mainland – until that time, Beijing considers it a 'renegade province' illegitimately seeking independence (*taidu*).[25] Officially, Beijing has a policy that accepts the necessary use of 'non-peaceful means' in the event of a Taiwanese push for independence. U.S. support for Taiwan has been clear ever since the outbreak of the Korean War in 1950 and the subsequent 1954 Mutual Security Pact that placed "China's Taiwan 'province' under U.S. protection."[26] Crucially regarding the focus of this paper is the 1979 Taiwan Relations Act that committed the U.S. to provide Taiwan with "arms of a defensive character"[27] in order to prevent Chinese coercive (re)unification.

In January 2010, President Obama announced the approval of an arms deal with Taiwan worth $6.7 billion that crucially included one-hundred and fourteen Patriot-3 anti-ballistic missiles (ABMs),[28] the purpose of which is clearly to deter the one thousand four-hundred Chinese offensive missiles and rockets currently deployed across the Strait.[29] For China, this considerably undermines hopes for eventual reunification and serves only to bolster Taiwanese self-confidence and give the U.S. more freedom of action in any conflict over Taiwan. For Rex Li, the U.S. sale of TMD systems to Taipei is part of a wider U.S. policy of "using Taiwan to constrain China" (*yitai zhihua*)[30] and undermines previous U.S. assurances of 'strategic ambiguity' over the Taiwan issue. For others, such a sale is "tantamount to a military alliance"[31] directed against China, and, because the People's Liberation Army (PLA) arguably represents the most notable 'nationalist' or realist voice within China, will serve only to encourage escalatory moves such as incentivizing increased missile deployments opposite Taiwan – thus exemplifying a security dilemma. Further to this, China has serious concerns regarding the stability of various outlying provinces, like Tibet or Xinjiang, where secessionist, anti-government movements could be bolstered by an increasingly confident Taiwanese independence movement backed by U.S. weapons and support.

Even though one-hundred and fourteen Patriot-3 missiles cannot defend Taiwan from a full-scale Chinese missile strike, sophisticated BMD technology in the hands of Taipei symbolizes a highly significant shift in the power balance. China has, as the result of one U.S. action, lost a crucial measure of strategic leverage over American regional power and will presumably have to respond counteractively.

A growing U.S. Asian Security Alliance Network

Extending missile defense protection to … allies such as Japan, South Korea, Taiwan, Australia and India, has the potential to stress existing security dilemmas within the Asia-Pacific region
IISS Strategic Comments[32]

For China, the U.S. is continuing to develop a 'security community' throughout Asia that resembles more Machiavellian characteristics than anything ever espoused by Kant. From a Chinese perspective, it symbolizes a "coalition of the willing"[33] to gently constrain China through a subtle policy of "containment plus engagement"[34] with the eventual aim of 'Westernizing' or 'splitting' China.[35] The linchpin to this multilateral security alliance is the supply of land-based (Patriot-3) and sea-based (Aegis vessels with Standard Missile-3 ABMs) BMD systems that can potentially be integrated into a complete region-wide system. Thus far, Japan, Taiwan, South Korea and Australia all utilize some or both of these systems while India has developed its own indigenous BMD capability.

Given China's perception that regional stability and economic engagement are key to continued growth and development, Chinese officials are increasingly concerned by these developments. Not only do they further antagonize already existing regional security dilemmas,[36] but they indicate a widespread anxiety over a 'rising China' – something that Beijing has been extraordinarily keen *not* to cause. Alliances, which China is uniquely hesitant to develop, are seemingly arising all around it as neighbouring states 'hedge their bets' as to whether a future China will be a status quo or revisionist power.

A crucial aspect of this regional power shifting is the 'containment plus engagement' observation. Interestingly, all the states mentioned above are actually expanding their interactions with China. Japan's new Prime Minister Yukio Hatoyama has introduced a more Asia-centric foreign policy that aims primarily to make relations with the U.S. less dependent (by withdrawing all forces from Afghanistan) and more domestically transparent,[37] and to expand relations and heal 'old wounds' (by planning a state visit to Nanjing[38]) with China. In South Korea, President Lee Myung-bak is noted for his close relations with the U.S. but is simultaneously seeking a Free Trade Agreement (FTA) with China[39] and relying on Beijing to contain the North through their leadership of the Six-Party Talks. In Taiwan, President Ma Ying-jeou stands by his 'Three No Policy' (no reunification, independence or war with China) but has probably brought about the greatest improvement in Sino-Taiwanese relations for decades.[40] This trend is similar for other states, like Australia, Singapore, India and Indonesia, who, though they have less direct antagonism with China, still view it as a potential great hegemonic power.

Given the Japanese imperialist history in China and events like the 'Rape of Nanjing,' Chinese concerns over Japan are highly emotive. Wang Chiming expects the development of a US-Japanese "special relationship"[41] and for Japan to gradually dissolve its pacifist constitutional constraints and eventually remilitarize to counter China and protect Taiwan.[42]

In essence, individual Asian state policies relating to the U.S. symbolize a mass 'hedging of bets' against China's rising power and influence. This visible strategic siding with the U.S. can only lead to increased Chinese suspicion of wider U.S. policy for the Asia-Pacific region. Whether China can continue to rely on economic cooperation and interdependence to prevent regional tensions is still to be seen.

Effect on Space Security & Arms Control

Outer space is going to be weaponized in our lifetime … if there is a space superpower, its not going to be alone and China is not going to be the only one
Sr. Col. Yao Yunzhu, PLA[43]

China has long been an opponent of weaponizing outer space and is a leading member of the Prevention of an Arms Race in Outer Space (PAROS) initiative. Conversely, the U.S. has staunchly refused to discuss a PAROS-like treaty under the existing terms laid out by China and Russia. Crucially for this paper, space weaponization and BMD are inherently connected in that ballistic missiles travel through space and defending against them requires some extent of space assets. Furthermore, control of space would necessarily result in a comprehensive 'layered' BMD system with global scope[44] – something that China is adamantly trying to prevent. This explains why Chinese analysts like Feng Shaolei reacted to the U.S. withdrawal from the ABM Treaty in December 2001 by claiming it proved a "U.S. pursuit [for] international primacy in a world of uncertainty."[45] Space is the last domain free of total human control and any state that acted preemptively to establish absolute space control would undoubtedly acquire bona fide global hegemony. Unfortunately for the arms control establishment, the Outer Space Treaty does not prevent the deployment of orbital 'defensive' weapons. In many respects, the ABM Treaty was the last barrier to weaponizing space – now that it has ceased to exist, U.S. BMD development represents a destabilizing power shift that *does* threaten to initiate a great power arms race in space. Before 2000, there was a widely held Chinese perception that the U.S. was constructing a post-Cold War arms control environment that suited its own interests[46] – the withdrawal from the ABM Treaty proved this to China and encouraged a Waltian 'balance of threat' outlook on international relations.

The twenty-first century has seen the PLA develop a "voluminous literature"[47] on space weapons and conflict, largely in reaction to U.S. progress in BMD technology and its potential space applications. China evidently recognizes the immense utility of space and cannot allow the U.S. to acquire dominance there. Major General Liu Jixian's view that "whoever controls the universe controls our world; whoever controls space controls initiative in war"[48] is becoming commonplace in Chinese analysis and is encouraged by events like the annual 'Schriever' Space Wargame organized by the U.S. Air Force Space Command.

Chinese lawyers, like Li Juqian, have also been producing work on the legality of anti-satellite weapon (ASAT) tests, like the one China conducted in January 2007, and on analyzing the issue of sovereignty in outer space.[49] This strongly indicates that the PLA is planning in an escalatory manner and contributing towards a Sino-U.S. security dilemma in space. In fact, it is likely that China's strategic reaction to U.S. moves to acquire preeminent control in space will be a continuation of classical Chinese 'minimal deterrence' – where China will manipulate "asymmetric space deterrence"[50] (where China has more targets to aim at in space than the U.S.) along Sun Tzu's principle of "defeating the superior with the inferior"[51] and in conjunction with the doctrine of 'informationalized warfare.'[52] As Dai Xu stresses, "leveraging space technology can allow a rising power to close the gap with advanced countries more rapidly than trying to catch up."[53]

The above analysis has made clear that U.S. BMD and space security policy has aroused significant concern in China due to its inherently negative impact on four key issue areas of Chinese foreign and security policy. As explicated in the introductory paragraphs, a security dilemma is deemed to be in existence when: State *a*'s actions are perceived as aggressive by State *b*, who subsequently reacts in an escalatory manner, thus initiating a spiral of escalation that often leads to conflict. At the heart of this is the fact that "weapons that states can use for their own self-protection, [can] potentially or actually threaten harm to others"[54] and one can never know the intentions of another – 'the problem of Other Minds.'[55] Human agency is therefore "the critical variable" that determines whether a security dilemma produces "a mistrustful spiral of deteriorating relations, or a virtuous circle of cooperation."[56] It is this aspect of human agency – how has China decided to react – that will now be discussed.

China's Reaction: Escalation or Cooperation?

Military reaction:

There's no problem for China to increase its arsenal by 100 missiles a year, even with today's budget restraints. These missiles are cheap to produce
Chu Shulong[57]

The most striking and certainly escalatory Chinese reaction came on January 11th 2007 when the PLA Air Force conducted an ASAT test that destroyed an aging Chinese weather satellite, the Fengyun-1C.[58] Although China began researching ASAT technologies in the mid-1980s,[59] the fact that this was the world's first ASAT test since 1985,[60] and that its success meant China had surpassed what the Soviet Union ever accomplished,[61] means that it sent a very serious message to the international community. As far as linking it to U.S. BMD and space security policies, Chinese officials have claimed the test was meant to express a 'matching of U.S. capabilities' and to fortify the Chinese 'minimal' nuclear deterrent.[62] Although a case can, and has been made for its legality under current international law,[63] it unquestionably broke post-Cold War behavioural norms, and given that the U.S. reciprocated with their own ASAT test in February 2008,[64] it helped consolidate a chronic mistrust between China and the U.S.

Another Chinese reaction, also escalatory to the U.S. but in a more subtle manner, is the accelerated modernization and partial expansion of the strategic missile forces – the Second Artillery Corps. Whereas in 2002 the core of the Chinese inter-continental ballistic missile (ICBM) force, the DongFeng-5A, was immobile and took two-to-four hours to fuel prior to launch,[65] today's arsenal, based around the DongFeng-31, is road-mobile and can launch immediately on command.[66] Furthermore, these new missiles carry multiple independently-targetable reentry vehicles (MIRVs),[67] highly sophisticated satellite-guidance technology[68] and the capacity for deep earth

penetration.[69] This qualitative improvement is further compounded by a quantitative increase in scale and also the deployment of nuclear-armed Ju-Lang-2 submarine-launched ballistic missiles (SLBMs) onboard China's new nuclear-powered Jin-class submarines.[70] All of this helps to enhance and protect China's retaliatory nuclear deterrent force and crucially to weaken the influence of U.S. BMD.

Specifically regarding Taiwan, China has continued to increase the missile force aimed across the Strait and has reportedly now included Russian S-300PMU-2 satellite guided anti-air systems[71] to deter any future preemptive *or* retaliatory missile or aircraft strikes, thus establishing near-complete cross-Strait influence. As further proof of a security dilemma, five days after the U.S. announced the sale of TMD systems to Taiwan, China successfully tested for the first time an indigenous BMD system,[72] which will only add to China's deterrence and power projection capacity.

What is perhaps most potentially alarming is the nature of the PLA's research and development (R&D) initiatives in counterspace technologies. In-depth research and analysis into microsatellite kill vehicles,[73] particle beam and high-powered microwave and laser weapons,[74] as well as space mines and pellet clouds[75] all send a particularly threatening message to the future security of U.S. space assets. This is further exacerbated by reports of the PLA having used experimental lasers to 'blind' U.S. satellites.[76] Continued research into "technological hedges"[77] for improving BMD penetration capacity, especially the development of maneuverable reentry vehicles (MaRVs) that could 'dodge' US BMD interceptors[78] has raised significant concern in the U.S. as to Chinese future intentions.

Militarily therefore, China has definitely acted along what Booth and Wheeler call, in a security dilemma context, the 'fatalist' role. China has acted defensively in a way that has escalated tensions and mutual suspicion and lent credence to Hobbes' vision of an anarchical world dominated by purely self-interested motivation. China has expanded and modernized its nuclear missile forces in order to sustain its "uncertainty principle" of deterrence, has consolidated its regional influence, especially over Taiwan, and has developed asymmetric balancing capacities to deter the U.S. from acquiring global dominance.

Political Reaction:

*Beijing prefers consultations rather than confrontations with the U.S., including on missile defense**[79]***

Within the political sphere, the Chinese reaction to U.S. BMD and space security policy has been, on the whole, remarkably different in that it has emphasized the crucial importance of dialogue and economic engagement. Conscious of history's rising powers being profoundly threatening and violent, China has been keen to stress its 'peaceful rise' as a 'responsible great power.' The Chinese notion of the 'new security concept' (*xin anquan guandian**[80]***) – where economic engagement and trade relations are deemed more important for national security than competition within conflicting and antagonistic ideological blocs – now largely directs Chinese foreign policy. This points to a wider trend of constructivist influence in Chinese foreign policy. There seems to be a strong belief, reinforced by traditional Confucian teaching, that through effective public diplomacy and soft power, China can attract its regional neighbours towards a Chinese perspective and establish a stable and cooperative peripheral security environment governed by the notions of comprehensive security (*zonghe anquan**[81]***) and harmony. From an external frame of reference, such a policy ironically seems to be a more subtle version of what China has perceived as a U.S. policy of "containment plus engagement!"

China's regional relations wholly represent this diplomatic philosophy. Regarding Taiwan, despite its harsh reaction to U.S. arms sales, China is experiencing an enormous improvement in cross-Strait relations with four rounds of wide-ranging semi-official talks completed and one planned for the near future,[82] and extensive negotiation under way

for an Economic Cooperation Framework Agreement (ECFA). Relations with Japan could perhaps be in the first stages of a "diplomatic revolution" (*waijiao geming*[83]) where historically-created lingering mistrust is replaced by close economic cooperation. To a certain extent, China is more willing to tolerate Japanese BMD acquisitions as it is accepted that in the long-run, Japanese power *will* decline relative to that of China,[84] and it is better to ensure that Japan is not provoked into remilitarizing and thus presenting a greater threat than already exists. China is also seeking more productive South Korean relations, especially in economics and trade – this is arguably consolidated by China's leading role in the Six-Party negotiations.

Given China's need for a stable international environment in which to grow, arms control regimes have often been a core focus of Chinese diplomacy.[85] It is feasible therefore, and has been claimed,[86] that China's ASAT test in 2007 was a necessarily costly signal calling for a negotiated global ban on ASAT testing. After all, a major historical tool of diplomacy, especially between 'great' powers, has been the exploitation of military advances for bargaining leverage.[87]

In international relations, a state can react to a perceived provocation or threat primarily through two different channels, the military and politics. The case detailed in this paper emphasizes this very clearly. In perceiving a Chinese "lack of transparency surrounding its nuclear programs,"[88] and accepting that "Chinese missiles [are] capable of reaching … U.S. and allied military installations,"[89] the U.S. has taken actions and determined specific strategies *solely* within the military sphere. In response, the Chinese reaction has taken place both within its international diplomacy *and* its military activities, the former transcending U.S. antagonisms and the latter reciprocating them.

This reveals a fascinating aspect of China's wider policy-making structure. It increasingly seems that the Chinese Communist Party (CCP) and the PLA are operating under the influence of very different philosophies. On the one hand, Hu Jintao's 'harmonious world' and 'peaceful rise' policies are inherently intertwined with five-thousand years of Chinese rationalist Confucian thought,[90] and emphasize the primacy of economics and the self-rewarding power of engagement in order to "sustain a peaceful setting for the country's rise to the ranks of the great powers."[91] Meanwhile, the PLA seems to represent an increasingly Machiavellian nationalist stance[92] that stresses a realpolitik view of a Hobbesian world of constant threat and competition. The PLA therefore has reacted with a short-term view aimed at defending Chinese interests by directly preventing the U.S. from expanding its influence relative to China, while the CCP's diplomatic trends point to a more long-term objective of sustaining growth and development by advancing dialogue and engagement in order to inhibit the formation of a grand anti-China alliance.

Therefore, there certainly is a security dilemma in existence – as U.S. BMD and space security policies heralded a potential paradigm shift in the long-term Sino-U.S. power balance – but, in the short- and medium-term, there is simply too much critical economic interdependence between the two states for any extent of conflict to logically arise. Today, rationalism seems to hold the advantage in the wider scope of Chinese foreign policy, something that is perhaps reinforced by the Obama administration's "phased adaptive approach"[93] to BMD, its pledge to seek an international ban on space weapons,[94] and its determined and constructive attitude to nonproliferation and arms control. However, in the long-term, once China has consolidated itself as a truly global superpower, the stabilizing economic interdependence may begin to dissolve and generate revisionist tendencies that precipitate more fatalistic security dilemma repercussions.

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