

### 1.1 Motivation and Purpose

The year 2007 will be remembered by many as the year the People's Republic of China (PRC) contradicted its own previously declared policies and national interests by launching a surprise anti-satellite (ASAT) test, and in so doing altered the course of international relations at a number of levels. Beijing's successful January 11, 2007 direct ascent ASAT test, which destroyed the orbiting *FengYun-1C* (FY-1C) weather satellite just over 500 miles above earth, shattered the post-9/11 calm in U.S.-Chinese geo-political relations and marked a turning point in the strategic use of outer space.<sup>1</sup> In addition to creating a historic amount of dangerous space debris, the test also served as a harbinger of things to come, as Washington and Beijing's adversarial strategic competition, which up to this point had simmered quietly beneath the surface, overtly exploded onto the pages of global media.

The success of the Chinese ASAT test, once it was confirmed by the United States government to have occurred, triggered a cascade of events. Superficially there was the media outcry condemning the Chinese test for its aggressive overtones and for the unprecedented amount of space debris it created in a highly used orbit. The test was quickly condemned as irresponsible and unacceptable to the international community, which realized that it had come to rely heavily on outer space for a variety of

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<sup>1</sup> Jonathan D. Pollack, "Chinese Military Power: What Vexes the United States and Why?" *Orbis* (Fall 2007): 635.

crucial economic and scientific functions that now seemed in jeopardy.<sup>2</sup> Then, at a deeper level, there was the political and military upset at the sudden global-strategic recalibration Beijing's action necessitated. Governments around the world (and the U.S. government in particular) found themselves faced with the uncomfortable reality that they had misjudged Beijing's capabilities and intentions. And even more profound were the academic questions the test sparked concerning the motivation of the Chinese government, the nature of the PRC government's decision-making apparatus and what Beijing's newfound willingness to flex its military muscle portended for the future of global stability.<sup>3</sup>

However, despite a flurry of news reports, congressional testimonies, journal articles and diplomatic feelers, the Chinese government is still failing to clarify itself.<sup>4</sup> Over a year has passed and many fundamental, let alone profound, questions remain unanswered. This situation is further exacerbated by the piecemeal fashion the existing attempts at clarity have taken, and the result is that ultimately the reader is left trapped in the murky forest looking at individual trees and wondering if there is not some greater whole to be discovered. Clearly important questions have not yet been answered, and we are still a long way from

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<sup>2</sup> Theresa Hitchens, "U.S.-Sino Relations in Space: From 'War of Words' to Cold War in Space?" *China Security* (Winter 2007): 13.

<sup>3</sup> Bates Gill and Martin Kleiber, "China's Space Odyssey: What the Antisatellite Test Reveals About Decision-Making in Beijing," *Foreign Affairs* (May/June 2007): 4.

<sup>4</sup> Bill Gertz, "U.S. satellites dodge Chinese missile debris," *The Washington Times*, January 11, 2008. available online at: <http://www.washingtontimes.com/news/2008/jan/11/us-satellites-dodge-chinese-missile-debris/>

understanding the big-picture of China's ASAT test.

These crucial questions still remain unanswered or insufficiently answered: Why exactly did China conduct the ASAT test? What should the United States and the international community's reaction be? Will there be an arms race in outer space? Was this the opening shot in a 21<sup>st</sup> century cold war waged between the U.S. and China or is Beijing still aiming for a "peaceful rise" and a "harmonious co-existence" with the West? And what will the strategic role of space be in the future? If these questions are to be fully answered, one must look to the individual disciplines of international affairs, diplomacy, security, arms control, etc.; not with an eye to divide them, but rather with the intention of synthesizing them into a greater whole in order to understand the full spectrum of questions and problems this complex issue entails.

To date, no comprehensive academic work the author is aware of has been produced explaining China's deepening militarization of space and its implications for the U.S. Certainly, no books have been published on the topic since last year's ASAT test, and one finds that the journal articles that have been published on the matter largely tend to follow preexisting viewpoints and arguments. This is problematic because China's strategic actions in recent years (the most notable of which was of course its successful ASAT test) represent an increasingly aggressive trend evident in the PRC's strategic and military transformation, and this trend has the potential to drastically alter the fabric of the entire international security architecture. It is hoped that this study can help bridge the gap that currently exists between China's actions and the slow-in-coming academic efforts seeking to understand

and explain them.

The rise of China will arguably be the single most important event of twenty-first century international relations,<sup>5</sup> and the exploitation and exploration of outer space is set to ever more deeply influence a variety of human endeavors, from the scientific to the commercial to the strategic. Indeed, many now argue that space, as “the ultimate high ground,” is becoming every bit as strategically vital in this young century as the seas and the air proved to be, respectively, in the last two centuries.<sup>6</sup> For that reason, a holistic study of China’s ASAT test is not merely timely and urgently needed, but it also provides a window into some of the most abiding problems of our times.

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<sup>5</sup> G. John Ikenberry, “The Rise of China and the Future of the West: Can the Liberal System Survive?” *Foreign Affairs* (January/February 2008): 23.

<sup>6</sup> Benjamin S. Lambeth, *Mastering the Ultimate High Ground: Next Steps in the Military Uses of Space* (Santa Monica, CA: RAND, 2003), 107, 115-116.

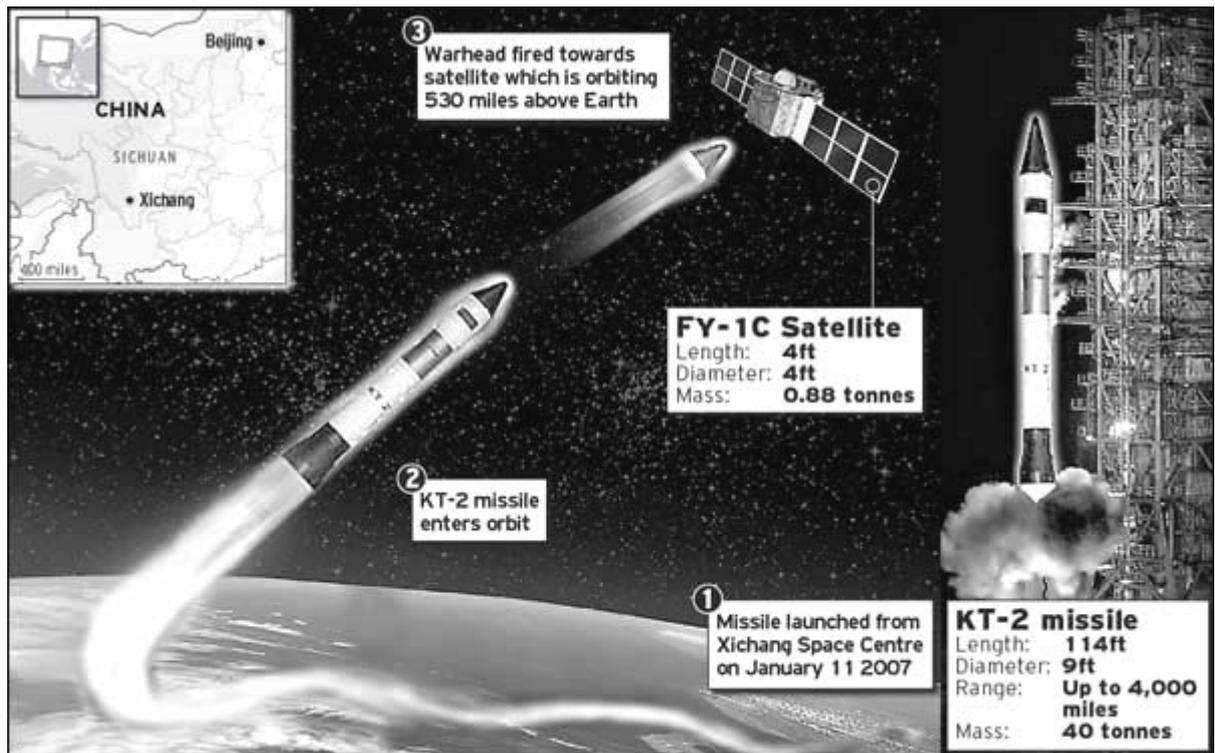


Figure 1: Schematic of China's ASAT Test, January 11, 2007. Source: [www.nautilus.org](http://www.nautilus.org)

## 1.2 Theoretical Framework

This study will employ John Mearsheimer's theory of offensive realism to analyze China's military space program at the system-level of analysis, especially as it relates to China's successful, direct-ascent ASAT test of last year. Mearsheimer's *The Tragedy of Great Power Politics*, a comprehensive study of great power politics, will serve as the main pillar of this study's theoretical framework. In his classic work, Mearsheimer argues persuasively that due to three features of the international system: 1) the absence of a central authority above states that can protect them from each other, 2) the reality that states always have some offensive military capabilities, and 3) the fact that states can never be certain about

other state's intentions, great powers are condemned to the unrelenting pursuit of power.<sup>7</sup> Moreover, great powers are inclined to look for opportunities to alter the distribution of world power in their favor, and will seize these opportunities if they have the necessary capability. Great powers are therefore primed for offense. Great powers both seek to gain power at the expense of other states, and try to thwart rivals efforts to gain power at their own expense.<sup>8</sup> According to Mearsheimer's offensive realism, a great power will defend the balance of power when a looming change favors another state, and a state will try to undermine the balance of power if change favors it. Great powers are not status quo states because they recognize that the more powerful they are relative to their rivals, the greater their chances of survival.<sup>9</sup> This theory lends itself well to the study of current and future U.S.-China relations because China has risen to the point where it can be considered a great power, and indeed, Beijing's recent actions are reflective of the type of strategic thinking that offensive realism would predict.

John Mearsheimer defines a great power as a state with sufficient military assets to put up a serious fight in an all-out conventional war against the most powerful state in the world. He points out that, "the candidate need not have the capability to defeat the leading state, but it must have some reasonable prospect of turning the conflict into a war of attrition that leaves the dominant state seriously weakened" and, in the modern era, "great powers must have a nuclear deterrent that can survive

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<sup>7</sup> John J. Mearsheimer, *The Tragedy of Great Power Politics* (New York: Norton, 2001), 3.

<sup>8</sup> Ibid.

<sup>9</sup> Ibid.

a nuclear strike against it, as well as formidable conventional forces.”<sup>10</sup> This definition did not apply to China until recently, and some might argue that, given the superiority of America’s nuclear and conventional military forces, China still does not qualify as a great power.<sup>11</sup> However, China’s rapid military modernization program, both nuclear and conventional, when combined with its anti-access and area denial strategies and its unexpectedly rapid development of counter-space capabilities, does indeed qualify China as a great power according to the offensive realist definition (and this is to say nothing of China’s incredible economic and diplomatic influence).<sup>12</sup> In fact, the success of the PRC’s direct ascent ASAT test last year marked a turning point not just in the strategic use of outer space, but also in the debate over whether or not a rising China is a status quo power.<sup>13</sup>

Arguably, a number of Chinese actions in recent years represent a disturbing trend, and these actions could be seen as marking a turning point in the ongoing debate over whether or not China is transforming from a more defensive, status quo power into an aggressive, revisionist power.<sup>14</sup> And while the theory of offensive realism avoids this debate altogether, positing as it does that great powers are inherently revisionist in nature,<sup>15</sup> a discussion of the debate is appropriate given its relevance

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<sup>10</sup> Ibid., 5.

<sup>11</sup> Keir A. Lieber and Daryl G. Press, “U.S. Nuclear Primacy and the Future of the Chinese Deterrent,” *China Security* (Winter 2007): 67.

<sup>12</sup> Roger Cliff, Evan Medeiros and Keith Crane, “Keeping the Pacific: An American Response to China’s Growing Military Might,” *RAND Review* (Spring 2007): 20.

<sup>13</sup> Richard Halloran, “China Stands Up 2007,” *Air Force Magazine* (August 2007): 30.

<sup>14</sup> Ibid., 24-25.

<sup>15</sup> Mearsheimer, 3.

to the topic at hand, and given the doubts that some might have as to whether offensive realism is a suitable lens through which to view China.<sup>16</sup> Beginning under the leadership of President Jiang Zemin, and increasingly under his successor President Hu Jintao, Beijing has sought to foster an image of itself as a benevolent rising power that does not seek to increase its power at the expense of other states.<sup>17</sup> The idea that a rising China is a status quo power, not seeking to upset regional balances, is a popular one, and it underpins calls in the U.S. and elsewhere for engagement with the PRC.<sup>18</sup> One of the most sophisticated examples of this argument can be seen in Alastair Iain Johnston's work "Is China a Status Quo Power?"

Alastair Iain Johnston's work seeks to explore the degree to which China's leadership is pursuing status quo or revisionist foreign policies, arguing that "the most common characterization of China—that it is a dissatisfied, revisionist state, expressed in everything from a desire to resolve the Taiwan issue in its favor to excluding U.S. military power from the Asia-Pacific region to replacing U.S. unipolarity..." is not clearly "accurate at this moment in history."<sup>19</sup> He argues that despite Condoleezza Rice's argument that "China is not a 'status quo' power,"<sup>20</sup> and despite common comparisons between a rising China and the rise of

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<sup>16</sup> Ikenberry, 24.

<sup>17</sup> Ashley J. Tellis, "A Grand Chessboard: Beijing seeks to reassure the world that it's a gentle giant," *Foreign Policy* (January/February 2005): 52.

<sup>18</sup> Zbigniew Brzezinski, "Clash of the Titans: Make Money, Not War," *Foreign Policy* (January/February 2005): 46-47.

<sup>19</sup> Alastair Iain Johnston, "Is China a Status Quo Power?" *International Security* (Spring 2003): 2.

<sup>20</sup> Condoleezza Rice, "Promoting the National Interest," *Foreign Affairs* (January/February 2000): 56.

other revisionist states such as fascist Japan and Wilhelmine Germany, the idea that “a dissatisfied China presents a fundamental challenge to the international order established and preferred by the United States” is too vague to be persuasive given the poorly defined “international order.”<sup>21</sup> Johnston seeks to clarify this problem by proposing a set of indicators with which one can assess whether or not a state such as China is outside the status quo “international community.” These indicators include a state’s participation rates in international institutions, a state’s degree of compliance with international norms (such as sovereignty, free trade, nonproliferation and arms control, national self-determination, and human rights), and a state’s behavior toward “the rules of the game.”<sup>22</sup> He argues that the vague and sometimes conflicting nature of international norms makes it difficult to define China as outside these norms, and goes on to look at other indicators such as revisionist preferences and behavior concerning the distribution of power. Ultimately, Johnston concludes that China’s balancing against the U.S. is “hesitant, low-key and inconsistent” and points out that “China’s revisionism on the Taiwan issue does not appear to be reflexive of China’s broader diplomacy elsewhere in that region of the globe. It is a dangerous exception, but an exception nonetheless.”<sup>23</sup> However, he does add the caveat that social instability or an emerging security dilemma over Taiwan could lead “each side to see the other as

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<sup>21</sup> Johnston, 2.

<sup>22</sup> *Ibid.*, 3.

<sup>23</sup> *Ibid.*, 16.

fundamentally opposed to its basic security interests.”<sup>24</sup> This is interesting because a number of Chinese actions in the years following Alastair Iain Johnston’s 2003 article suggest that a security dilemma is indeed emerging, although more recent scholarship still argues that China can still be successfully integrated into the U.S.-led international system.<sup>25</sup>

The scholar G. John Ikenberry believes that “the rise of China will undoubtedly be one of the great dramas of the twenty-first century” as China’s power and influence increases, “but exactly how this drama plays out is an open question.”<sup>26</sup> Ikenberry argues that, “whereas the Soviet Union rivaled the United States as a military competitor only, China is emerging as both a military and an economic rival---heralding a profound shift in the distribution of global power”<sup>27</sup> and for this reason, he argues it is essential to revive the Western order in order to accommodate and integrate China peacefully. Ikenberry’s argument uses the examples of the United States’ peaceful rise in the late nineteenth century into the British-centered international order, and the U.S. post-World War Two and post-Cold War successes at integrating former foes into the U.S.-led family of nations to suggest that the U.S. can succeed in integrating China as well. However, as he points out, “a variety of factors determine the way in which power transitions unfold. The nature of the rising state’s regime and the degree of its dissatisfaction with the old order are

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<sup>24</sup> Ibid., 17.

<sup>25</sup> Ikenberry, 24.

<sup>26</sup> Ibid., 23.

<sup>27</sup> Ibid., 26.

critical.”<sup>28</sup> On both scores there is clear reason to be uneasy in China’s case, especially given the PRC’s willingness to support international pariahs such as Sudan, Iran, Burma and North Korea. In addition, China’s efforts to sign bilateral and “minilateral” trade and security pacts which exclude the U.S., while at the same time resisting further meaningful exchange with the U.S. military, both highlights the nature of the PRC’s communist regime and underscores its dissatisfaction with the U.S.-led order. The incongruence between the PRC efforts to present itself as a peacefully rising power and the reality of its actions and policies was noted in a recent Congressional report which states: “China is presenting to the world the image of a confident and benevolent world power. But that image stands in contrast to a number of actions by and policies of China’s authoritarian government. As a result, Beijing presents enormous challenges.”<sup>29</sup> Mearsheimer goes even further pointing out that “unfortunately, a policy of engagement is doomed to fail. If China becomes an economic powerhouse it will almost certainly translate its economic might into military might and make a run at dominating Northeast Asia.”<sup>30</sup> A number of recent Chinese actions testify to the possibility that Beijing may be preparing to do just that.

A series of recent events suggest that China, now emboldened by a combination of military, economic and diplomatic powers unimaginable just a few short years ago, is moving towards a more aggressive foreign

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<sup>28</sup> Ibid., 27.

<sup>29</sup> “2007 Report to Congress of the U.S.-China Economic and Security Review Commission,” October 29, 2007, 19. available online at: <http://www.uscc.gov>

<sup>30</sup> Mearsheimer, 4.

policy stance. In August-September of 2006 the PRC used high-powered, ground-based lasers to blind or “paint” U.S. reconnaissance satellites on several occasions as they passed over China. Reports stated that these were either ASAT tests or relatively “low-power” laser ranging devices intended to precisely determine satellite orbits for ASAT purposes.<sup>31</sup> It is not clear whether or not the lasers did any permanent damage to the highly-sophisticated, billion-plus dollar reconnaissance satellites (presumably one or more of the “Crystal” or “Key-Hole” KH-12/13 variety), but certainly the potential was there. The highly classified nature of such satellite platforms makes details sketchy at best, but they are thought to have been an important factor in keeping the cold war between the U.S. and the former Soviet Union from turning hot, and certainly any attempt to blind or disable them is reminiscent of repeated Soviet actions during the cold war.

The Soviet Union constructed several laser facilities for ASAT purposes and used them on multiple occasions to “paint” U.S. military early warning satellites starting in 1975.<sup>32</sup> In 1976 a new U.S. imagery intelligence (IMINT) KH-11 electro-optical (EO) satellite was permanently damaged by a Soviet laser, and on October 10, 1984 a Soviet laser facility illuminated the Challenger Shuttle, causing the malfunction of equipment and the temporary blindness and discomfort of the crew.<sup>33</sup> China’s recent actions suggest that the PRC may be emulating the former

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<sup>31</sup> Desmond Ball, “Assessing China’s ASAT Program,” *Austral Special Report*, June, 14, 2007.

available online at: <http://www.nautilus.org/~rmit/forum-reports/0714s-ball/>

<sup>32</sup> Ibid.

<sup>33</sup> Ibid.

Soviet Union in its use of lasers as ASAT weapons.<sup>34</sup> However, PRC laser ASAT tests represent little when taken in isolation; what is problematic, and far more telling, is the summation of recent Chinese military-strategic behavior.

Shortly after the PRC's August-September 2006 laser ASAT tests, a People's Liberation Army Navy (PLAN) Song class attack submarine surfaced in within torpedo range of the USS Kitty Hawk aircraft carrier in international waters near Okinawa. According to Admiral Fallon, then commander of U.S. Pacific Command (PACOM), this unexpected encounter "could well have escalated into something that was very unforeseen"<sup>35</sup> assuming that U.S. forces had been looking for submarines at the time, which they were not.<sup>36</sup> However, despite high-level U.S. military visits and diplomatic attempts geared towards forming a better relationship with the PRC government and the PLA, and thus reducing the possibility of potential future misunderstandings, the aggressive behavior seen in the laser ASAT tests and the submarine encounter only accelerated over the year 2007.<sup>37</sup>

In addition to the direct-ascent ASAT test, the year 2007 saw China engage in a concerted cyber attack on the Pentagon which is reported to have led to the shut down some internal Department of Defense (DoD)

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<sup>34</sup> Ibid.

<sup>35</sup> Jonathan Kent, "US Warns on China Sub Encounter," *BBC News*, November 14, 2006. available online at: <http://news.bbc.co.uk/2/hi/asia-pacific/6146520.stm>

<sup>36</sup> Ibid.

<sup>37</sup> Admiral Keating's Congressional Testimony, "HASC Hearing-Fiscal Year 2009 for U.S. Pacific Command and U.S. Forces Korea," *Congressional Hearing*, March 12, 2008. See also Office of the Secretary of Defense, "Military Power of the People's Republic of China," March 3, 2008, 2-6. available online at: <http://www.defenselink.mil/pubs/china.html>

email systems.<sup>38</sup> It also saw a historic series of military exercises with Russia which, while ostensibly meant for counter-terrorist/counter-insurgency purposes, were carried out with strong anti-Western overtones.<sup>39</sup> A series of offensive bomber exercises over the Western Pacific,<sup>40</sup> a substantial electro-magnetic warfare exercise in South China<sup>41</sup> and a large-scale series of secretive war games which ringed Taiwan with Kilo-class submarines, Sovremmy-class destroyers and elite People's Liberation Army Air Force (PLAAF) units were also of concern.<sup>42</sup> The PRC's week-long series of war games especially so, because they resulted in a diplomatic insult directed at the U.S., whose USS Kitty Hawk battle group was denied permission to dock in Hong Kong as planned to celebrate the Thanksgiving holiday, leaving hundreds of American family members who had flown in for the occasion stranded in Hong Kong. This diplomatic snub was particularly unexpected because earlier that month the U.S. Defense Secretary Robert Gates had visited Beijing and received new pledges from his hosts concerning PRC participation in U.S.-sought confidence building measures between the

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<sup>38</sup> Guy Anderson, ed., "2007 Annual Defence Report: Major Events and Trends," *Jane's Defence Weekly*, December 19, 2007, 16.

<sup>39</sup> Sergei Blagov, "Arms, Energy and Commerce in Sino-Russian Relations," *China Brief*, August 8, 2007. available online at: <http://www.jamestown.org/terrorism/news/article.php?articleid=2373607>

<sup>40</sup> Russell Hsiao, "Is the PLA Navy Making Plans for a Three Carrier Battle Group?" *China Brief*, January 4, 2008. available online at: <http://jamestown.org/terrorism/news/article.php?articleid=2373875>

<sup>41</sup> Wendell Minnick, "China Conducts Electromagnetic Exercise," *Defense News*, November 5, 2007, 1.

<sup>42</sup> Willy Lam, "China's Secret War Games and the Kitty Hawk Affair Flip-Flop," *China Brief*, November 29, 2007. available online at: <http://jamestown.org/terrorism/news/article.php?articleid=2373826>

two sides.<sup>43</sup> Around this same time, China, in an apparent effort to protest the U.S. sale of defensive weapons to Taiwan and President Bush's decision to meet with the Dalai Lama, denied two U.S. navy minesweepers permission to take shelter in Hong Kong Harbor for weather avoidance.<sup>44</sup> In his recent congressional testimony, Admiral Keating, the current commander of PACOM, referring to the Chinese docking denials, said "we were sad, particularly about the ships seeking safe harbor because they were low on fuel and in bad weather. You just don't do that, as mariners and as a nation that seeks to be admitted into the League of Nations. There are unwritten rules, and this is one of them. If a ship needs help, you provide that help."<sup>45</sup> In the same testimony Admiral Keating pointed out that recent conversations he had had with senior Chinese military leaders suggested China was seeking to "challenge" the U.S. military position in the Pacific. "One of their senior admirals said, 'We're going to start building aircraft carriers. You guys can have the east part of the Pacific, Hawaii to States. We'll take the west part of the Pacific, from Hawaii to China.'"<sup>46</sup>

The PACOM commander also pointed out how much friction is being created by his Chinese counterparts' unwillingness to discuss the question of why the PRC is developing anti-access and area denial weapons such as ASATs. "We ask them to explain their intentions, and they choose not to...when we ask them the reasons why they would want to develop area

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<sup>43</sup> Ibid.

<sup>44</sup> Ibid.

<sup>45</sup> Admiral Keating's Congressional Testimony, 16.

<sup>46</sup> Ibid.

denial weapons, that that seems to us inconsistent with China's stated goal of a peaceful rise and harmonious integration. We don't get much in the way of a discourse."<sup>47</sup> Keating also rejected the notion that the PRC military buildup is purely defensive in nature, saying "It seems clear to me that their goal is beyond simply protecting that which is theirs."<sup>48</sup> Official Pentagon documents also echo Admiral Keating's concerns.

The Department of Defense's annual report to Congress on the PRC's military power for the year 2008 states that China "has the greatest potential to compete militarily with the United States and field disruptive military technologies that could over time offset traditional U.S. military advantages."<sup>49</sup> In fact, China's military modernization program, which has seen double-digit increases in the PRC's military budget for over a decade, is "changing East Asian military balances; improvements in China's strategic capabilities have implications beyond the Asia-Pacific region."<sup>50</sup> There are problems inherent in any power shift, and the lack of transparency in China's rise is exacerbating them and increasing the depth of the U.S.-China security dilemma. According to the Pentagon report "China's leaders have yet to explain in detail the purposes and objectives of the PLA's modernizing military capabilities...China continues to promulgate incomplete defense expenditure figures, and engage in actions that appear inconsistent with its declaratory policies. The lack of transparency in China's military and security affairs poses

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<sup>47</sup> Ibid., 6.

<sup>48</sup> Ibid., 17.

<sup>49</sup> Office of the Secretary of Defense, I.

<sup>50</sup> Ibid.

risks to stability by increasing the potential for misunderstanding and miscalculation. This situation will naturally and understandably lead to hedging against the unknown.”<sup>51</sup> One analyst went even further saying, “the scope of China’s military modernization makes blindingly clear what their goals are...the fact is, they do seek regional hegemony. Everyone else in Asia understands this, so why can’t the Americans?”<sup>52</sup> Outside the U.S. China’s assertive actions are clearly causing some alarm in the regional and international community as well.

Taiwan’s Quadrennial National Security Outlook Report for the years 2008-2012 states that “Compared with four years ago...the Republic of China (Taiwan) faces more severe challenges.”<sup>53</sup> According to the report, this is in no small part due to PLAN and PLAAF units crossing the central line in the Taiwan Strait and operating in the seas and skies east of Taiwan in order to challenge ROC forces and limit the ROC’s reaction time, situational awareness and operational space.<sup>54</sup> Taiwan is also concerned that a U.S.-based, Chinese spy ring, recently disabled by the U.S. Justice Department, may have compromised a program to modernize the ROC’s Command, Control, Communications, Computers, Intelligence, Surveillance, Reconnaissance (C4ISR) networks and an agreement allowing Taiwan-U.S. communications during war.<sup>55</sup> The

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<sup>51</sup> Ibid.

<sup>52</sup> Wendell Minnick, “China Watchers See Few Gains for Gates in Beijing,” *Defense News*, November 12, 2007, 6.

<sup>53</sup> “2008-2012 National Security Proposal: Quadrennial National Security Outlook Report,” *Foundation on International and Cross-Strait Relations*, March 14, 2008, 4 (final draft of English version edited by author).

<sup>54</sup> Ibid., 47.

<sup>55</sup> Wendell Minnick, “Did China’s Spies Penetrate Taiwan Networks?” *Defense News*, February 18,

PRC's buildup of short-range ballistic missiles (SRBM) across the strait from Taiwan is also of clear concern. According to the Pentagon, "China has the most active ballistic missile program in the world" with between 900 and 1,070 SRBMs deployed opposite Taiwan as of November 2007, with more than 100 new missiles deployed per year.<sup>56</sup> China has also taken measures to strengthen its administrative jurisdiction over the Parcel and Spratly island groups, which are also claimed by Brunei, the Philippines, Malaysia, Taiwan and Vietnam, with a Chinese government spokesperson claiming that the PRC has "indisputable sovereignty" over the islands of the South China Sea "and the adjacent waterways." These declarations were met with Vietnamese protesters demonstrating in Hanoi outside the PRC embassy.<sup>57</sup>

In Europe, Hans Elmar Remberg, a high-level German intelligence official, publicly accused China of "almost daily" computer network intrusions, and stated that "across the world the PRC is intensively gathering political, military, corporate-strategic and scientific information" to strengthen its buildup.<sup>58</sup> In September 2007, the French Secretary-General of National Defense confirmed that French government information systems had been the target of attacks from the PRC. Likewise, in November 2007, the Director-General of the British domestic intelligence service, MI-5, warned 300 financial institution officials that they were being targeted by state-sponsored Chinese

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2008, 1.

<sup>56</sup> OSD, 2.

<sup>57</sup> Ibid.

<sup>58</sup> Ibid., 4.

computer attacks.<sup>59</sup>

Therefore, China's recent actions, from offensively geared military exercises to missile buildups to computer system attacks, when combined with high-level statements that suggest a desire to challenge the U.S. and a potentially dangerous level of opacity in military affairs, suggests that China is indeed operating with a revisionist foreign policy. This assertive PRC transformation away from its declared, more defensive, "status quo" policies has both strategic military and domestic political elements to it, which can be seen in China's military space activities.

Given the Chinese security concerns related to the U.S. military's Ballistic Missile Defense (BMD) program, and the unique potential inherent in Chinese asymmetrical, anti-access strategies, it seems likely that the PLA sees ASAT weapons as crucial to the strengthening of China's national security. It seems equally likely that at the domestic level, China's unique party-military relationship has previously and will continue to give the PLA an unparalleled voice in strategic foreign policy decisions. The fact that the U.S. is bogged down in Iraq, both in the physical, military sense and in the psychological, political and diplomatic sense, also seems to have prompted China's leadership to exploit the strategic opportunity that this state of affairs presents to China. This is precisely what the theory of offensive realism would predict.

Naturally, it is imperative to test the reality of foreign affairs developments with what theories such as offensive realism would predict because the utility of international relations theories arguably extends

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<sup>59</sup> Ibid.

only so far as their ability to explain and predict developments in the “real world.” This author believes that John Mearsheimer’s theory of offensive realism does the best job of explaining the broad contour’s of China’s intentions, motives and actions, and the specifics of China’s militarization of space, especially given China’s successful January 2007 direct-ascent ASAT weapon test. However, Mearsheimer’s theory, like all theories, does have gaps in its coverage of detail, and for that reason this paper will employ a nuanced theoretical framework in order to fill those gaps. Mearsheimer’s offensive realism will cover the broad strokes, at the system level of analysis, while an analysis of China’s party-military relationship and strategic viewpoint will fill in the details, at the national/strategic and domestic levels of analysis. Often it is tempting for a scholar to simplify his argument to the point where it no longer applies to the rich complexity of the “real world.” This author believes that, in their coverage of China’s January 11, 2007 ASAT test, others have made this mistake, and he hopes that this study will help to persuade its audience that in reality many factors are at play in China’s militarization of space, and a more nuanced perspective is needed if we are to fully understand Beijing’s militarization of space and all that it portends.



Figure 2: Image of Chinese ASAT targeting satellite.

Source: [www.defensetech.org](http://www.defensetech.org)

### **1.3 Thesis Outline**

To meet the objectives of this study, this thesis is divided into five chapters following the introduction. Chapter two contains an examination of the current literature on China's ASAT test and militarization of space, arguing that there are three broad interpretations of China's ASAT test, all of which, while illuminating, are flawed for various reasons, and therefore, a comprehensive study is required which can link together the current academic literature on the subject, and fill the gaps that exist. Chapter three addresses the definitional and historical issues inherent in any discussion of China's militarization of space, while contrasting the offensive realist reality of China's space developments, with the misleading status quo power rhetoric the PRC often deploys to describe its motives and intentions in space. Chapter four addresses two of the most critical, and poorly understood, aspects of China's militarization of space: the PRC's strategic quest for asymmetric space weapons to counter the U.S. conventional military superiority as well as America's evolving BMD shield, and the PRC's unique party-military relationship, which is influencing China's foreign policy and leading to a potential arms race in space. Chapter five deals with America's reaction to the Chinese ASAT test, as well as U.S. moves to defend its strategic use of outer space, which represent, in part, an overall U.S. attempt to thwart China's attempts at gaining power at its expense. Chapter six concludes with a discussion of some of the implications for U.S.-Chinese relations inherent in this subject, employing a combination of the theory of offensive realism and China's own unique strategic and

political circumstances to forecast the broad contours of future cross-Pacific relations. Ultimately, the overarching goal of this study is to provide the reader with a multi-spectral lens with which to view China's 2007 direct ascent ASAT test, and to describe the motives behind and implications of that historical test.

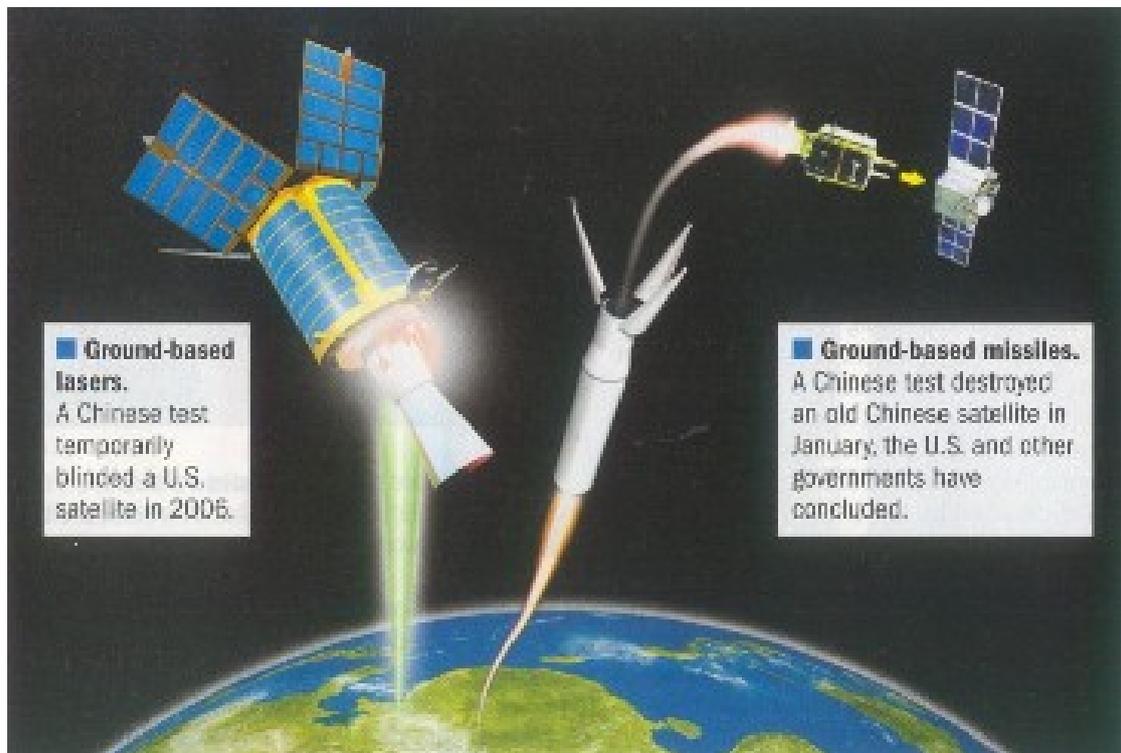


Figure 3: Image of Chinese laser and direct-ascent ASAT tests

Source: [www.spyflight.com.uk](http://www.spyflight.com.uk)

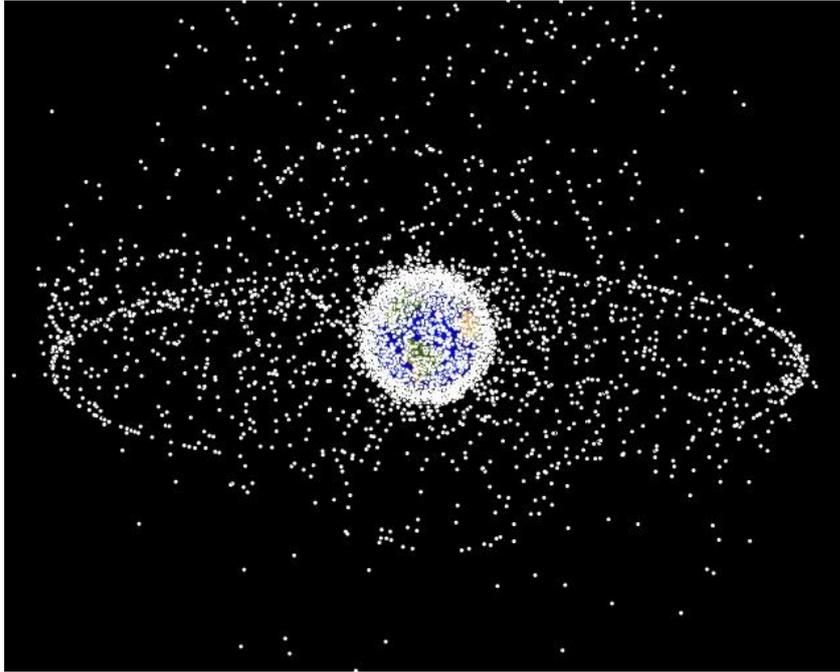


Figure 4: Image of Satellites and space debris in orbit prior to January 11, 2007

Source: [www.freerepublic.com](http://www.freerepublic.com)

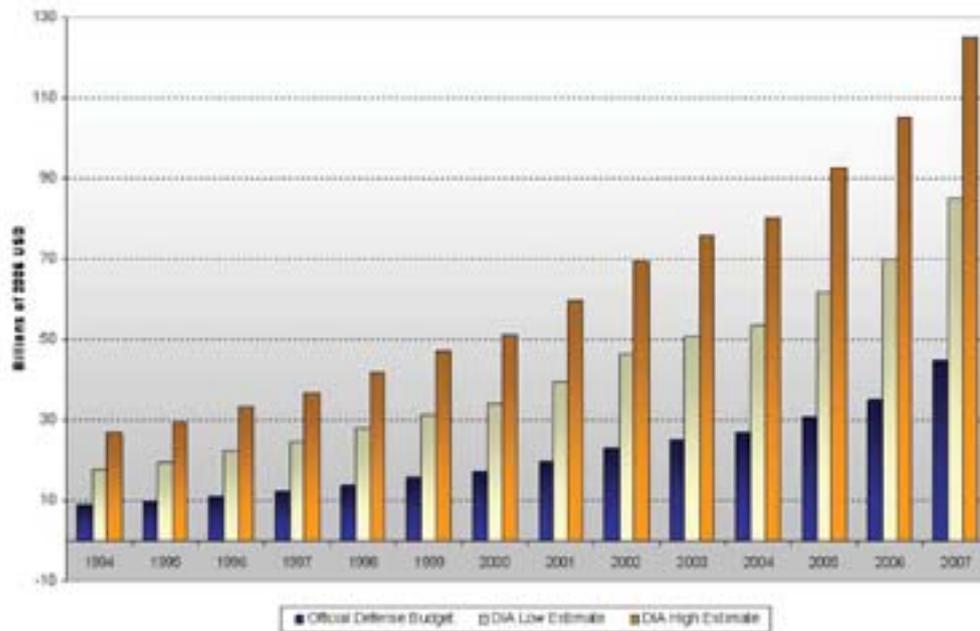


Table 1: Estimates of China's military expenditures

Source: DoD