Sun Tzu, Nuclear Weapons and China's Grand Strategy

by James Rickard

Strategic Insights is a bi-monthly electronic journal produced by the Center for Contemporary Conflict at the Naval Postgraduate School in Monterey, California. The views expressed here are those of the author(s) and do not necessarily represent the views of NPS, the Department of Defense, or the U.S. Government.

Sun Tzu said: The art of war is of vital importance to the state. It is a matter of life and death, a road either to safety or to ruin.[1]

Introduction: Outside Influences on Developments in China's Military

Nuclear weapons served as the centerpiece of superpower Cold War military deterrent strategies since they burst on the scene in the last century. To the credit of the five charter members of the slowly-growing "Nuclear Club" (NC), or the "nuclear weapon State Parties" as they are identified in the Treaty on the Non-Proliferation of Nuclear Weapons (NPT),[2] no *in bello* use of such weapons has occurred since the Empire of Japan experienced their effects in August 1945. Nuclear tests, however, were subsequently conducted by the Soviet Union (1949), the United Kingdom (1952), France (1960) and China (1964), and were later followed by India, Pakistan, Israel (although evidence has not been verified), and most recently by North Korea. It is incumbent upon each NC member-country to develop its own strategy for safeguarding, deploying, and using the weapons in its respective nuclear arsenal. The use of nuclear weapons in a conflict today could cause millions of deaths and untold billions of dollars in material and property losses. Hence, international regimes, such as the NPT, have been established to curtail the transfer of nuclear weapons technology to any non–nuclear weapon state. With the demise of the Soviet Union and the end of the Cold War, U.S attention shifted focus to China as the emerging power in Asia, and to the trajectory of China's nuclear weapons program.[3] This paper is not an historical review of China's nuclear weapons program. It is an attempt to provide a view into its future by suggesting answers to the question of: What is the Role of Nuclear Weapons in China's grand strategy? The paper will also discuss how the ancient writings of Sun Tzu have informed China's current strategy.

Much has been written on how the deterrent effects of nuclear weapons have actually succeeded in preventing a post-WW II nuclear exchange. NC members continue to include these weapons as vital elements in their overall grand military strategies. The perceived deterrent effects gained from the possession of nuclear weapons can also be "extended" to NC members' allies by means of security agreements (e.g., the promise to defend a non-nuclear ally against attack by a NC member). Also, to assuage the urge for non-nuclear states to join the 'club,' NC members such as China, for example, may publicly pledge, as it did in the white paper titled "China's National Defense in 2006" (*White Paper*), not to use nuclear weapons against non-NC members (a negative security assurance). China made an additional pledge of No First Use (NFU).[4, 5]

One reads of national nuclear strategies, such as the U.S.' Single Integrated Operations Plan (SIOP), which are highly classified and only individuals requiring access and possessing a need-to-know are aware of the target sets and strike options contained therein. It is self evident that

such information be kept from the ken of potential adversaries. Does one ever read about an equivalent Chinese 'SIOP'? One thinks not. Additionally, China's nuclear declaratory policy and its actual employment strategy may not necessarily overlap during a real-world contingency, or when *in extremis*. Deeds may belie words. This controversial topic will be discussed later in the paper.

Concomitantly, concerning the role of nuclear weapons in Chinese grand strategy, Ronald N. Montaperto wrote:

> . . . it is not in China's strategic interest to be transparent about most aspects of its nuclear posture and strategy. No amount of strategic dialogue is likely to be sufficient by itself to overcome Beijing's incentives to remain as opaque as possible. This is likely to be a major issue in future development of bilateral relations.[6]

The *White Paper* places the command and control of nuclear weapons and employment strategies in the hands of chairman of the Central Military Commission (CMC) of the Chinese Communist Party (CCP).[7, 8] Therefore, if is inferred that nuclear strategy formulation, and when necessary, execution orders, will be directed by the CMC.[9] The *White Paper* clearly stated: "China's nuclear strategy is subject to the state's nuclear policy and military strategy. Its fundamental goal is to deter other countries from using or threatening to use nuclear weapons against China."[10]

Secrecy as well as ambiguity of strategic nuclear plans is inherent and necessary. It is also a strength, since the lack of knowledge of China's nuclear plans on the part of potential adversaries compels them to hedge against an array of possible Chinese strategic maneuvers. The CMC, for its part, is aware that China cannot match the brunt of an all-out nuclear exchange with the U.S. and has correspondingly continued to tailor its deterrent strategy to suit its modest nuclear capabilities and to adapt its grand strategy according to Chinese characteristics.[11] However, the CMC has security concerns exclusive of those posed by the U.S. that must be addressed in its grand strategy.

China borders more international neighbors than any other nation except Russia. Since WWII China's borders have been bloodied: there were wars with India in 1962, the Soviets in 1969, and Vietnam in 1979. Therefore, China must factor in its neighbors and especially its NC neighbors India, Russia, and Pakistan in addition to the U.S. when formulating its grand strategy.

Right-sizing China's Nuclear Mix According to Chinese Characteristics

How has China developed and apportioned its nuclear arsenal to provide the requisite deterrence needed to counter its neighboring as well as more distant threats? The 50-page, unclassified, *Annual Report to Congress of Military Power of the People's Republic of China 2006* (*Military Power*) provided details of the U.S. Secretary of Defense's estimated Chinese military intentions for the next 20 years. The current number of Chinese CSS-4 ICBMs capable of hitting Alaska, Hawaii, and the western U.S. was estimated to be 20.[12] The next generation of ICBMs, the road-mobile DF-31 (same range as the CSS-4), and DF-31A with a range of 12,000 kilometer (km) can hit targets anywhere on the U.S. mainland.[13] The quantity of Chinese nuclear weapons will remain paltry compared to the thousands still maintained in Russian and American stockpiles.[14] The CIA estimated that between 2001 and 2015 China may have from 75-100 ICBMs capable of striking the United States.[15] China faces a strategic conundrum regarding its nuclear future: whether to build massive amounts of new weapons to be on par with Moscow and Washington, or to continue to produce nuclear and other weapons at its slow and deliberate pace. China's *White Paper* was clear on that score: "It [China] has never entered into and will never enter into a nuclear arms race with any other country."[16] A 2005 Chinese book devoted to coercive deterrence warfare notes that the Chinese studied the effects of the Cold War arms race between

the U.S. and the Soviet Union and surmised that its ultimate result (i.e., the bankruptcy of the Soviet economy) was in part caused by the arms race.[17] The 2006 Quadrennial Defense Review footnoted above drew attention to China as the emerging Asian power. China was forced to assume that mantle and was put on notice that the U.S. was watching its activities closely. As if coming to the defense of China in this matter, the Federation of American Scientists (FAS) and Natural Resources Defense Council published the 250-page *Chinese Nuclear Forces and U.S. Nuclear War Planning* in November 2006. The Executive Summary stated:

> Estimates about the size of Chinese nuclear arsenal were grossly overstated, sometimes by several hundred percent, and timelines for when new systems would come on line were almost always too much too soon. The reasons for these misjudgments include China's ability to keep its capabilities hidden, a tendency among some U.S. intelligence analysts to overstate their conclusions, and the Pentagon's general inclination to assume the worst. This predisposition to exaggerate the Chinese threat unfortunately remains evident today.[18]

Beijing immediately seized the opportunity presented by the FAS report's release to unleash a wave of public statements in the Party-controlled press concurring with the FAS that the Pentagon had exaggerated China's military threat in order to ramp up military spending and force China into an arms race. In the 2 December 2006 Beijing China Daily, Deputy Secretary General of the China Arms Control and Disarmament Agency, Teng Jianquin, said:

> Some people in the United States intend to drag China into an arms race to slow down China's economic development, as they did with the former Soviet Union, but I do not think China will follow suit.[19, 20]

The FAS excerpt inversely complements a paper written by Drs. Perry and Carter. The FAS said ". . . the Pentagon's general inclination to assume the worst,"[21] Perry-Carter, on the other hand, wrote that: ". . . the Chinese military leaders . . . will prepare for the worst."[22] Chinese officials reiterate and underscore their intent not to become mired in an arms race with the U.S.

Pursuing this argument, it is known that China has also studied American operations during the Gulf Wars and saw how the U.S. was able to mass forces, and when ready, to destroy Iraq's massive armor, aircraft, and missile forces in an expeditious and crushing manner. The Chinese do not want to relearn Iraq's lessons. How China will apply the Soviet and Iraqi lessons learned in formulating its own grand strategy is a mystery to Western observers, or is it? Can a Western observer divine the trajectory of Chinese strategic thought by analyzing official, open source speeches and writings? Are there hints or outright declarations of Chinese strategic thought available to savvy readers, just as low-hanging fruit is available on trees waiting to be plucked? Since the Chinese news media are state controlled, all press releases must have the imprimatur of the CCP. Therefore a careful culling of articles and books as well as public policy statements such as the *White Paper* will serve as a font of information not available from satellite photography or communications intercepts. Just as steganography seeks to hide a message within an image or other file; open source Chinese writings may contain confidential, official Chinese policies that outsiders can, with due attention, decipher.

An examination of open source documents on China's grand strategy reveals an intriguing thread that weaves its way through the corpus of thought on its grand strategy and the role of nuclear weapons within it. The result is, not surprisingly, ambiguity! The Chinese would like us to believe that even their leadership has not fully decided which path to pursue. *The Science of Military Strategy*, written by two People's Liberation Army (PLA) MajGens, announced that:

> At the most important position of the strategic structure is China's national strategy. *While no national strategy has been formally issued so far*, its contents are embodied in a

> series of general and specific policies worked out by the Chinese Communist Party and Chinese government.[23] (Emphasis added)

That passage is deliberately vague and leaves outsiders to ponder whence China has gone with its strategy, thereby making it difficult to develop possible counter measures.[24]

William J. Perry and Ashton B. Carter, co-directors of the Preventive Defense Project (PDP), discussed future Chinese strategies in an article titled "China on the March" in the *National Interest*. The authors opined that: "Since the Chinese military leaders cannot predict the future, they will prepare for the worst, even as they hope for the best. Hedging is contagious."[25] However, in a one-page letter to their PDP colleagues discussing their article, they observed that:

> China's future "intentions" are not a secret they keep from us, but a mystery that only the future will reveal as it is shaped by the next generation of Chinese and their leaders, their struggle with rapid growth and openness, and the ever-present possibility of crises over Taiwan or other issues.[26]

With all due respect to Drs. Perry and Carter, however, it is also possible that their perceptions have been shaped by clever deceptions (e.g., Sun Tzu said: All warfare is based on deception) which were implemented through an intentional Chinese strategic information and deception campaign. Denial and deception are integral components of Chinese nuclear strategy. *Military Power* stated that: "Whole departments of military academies teach moulüe, or strategic deception, derived from Chinese experience through the millennia."[27]

"The Inferior Defeats the Superior," "Assassin's Mace," and *Fait Accompli*

Chinese leaders know that they cannot defeat the United States in a face-to-face encounter. They have studied the results of the Gulf Wars. They also know that the United States, whose forces would confront theirs in a face off over Taiwan, would somehow have to be neutralized in a short-term conflict to achieve the desired results, or face defeat in a long-term conflict. The CMC knows that the U.S supply lines are long, that U.S. forces require enormous amounts of fuel and ammunition, and that they require intricate communications paths—both terrestrial and space-borne. This issue received detailed attention in *The Science of Military Strategy*:

> In regard to information systems, we should firmly destroy their surface facilities, jam and cut the enemy's information feedback transmission circuits first, and then try our best to knock off his awareness platforms and damage his information flow which can form capabilities, so as to achieve the effect of "decapitation."[28]

Chinese military planners would have to devise a means of interrupting U.S. supplies and communications for just as long as it would take for them to seize and occupy Taiwan. The Chinese do not want a protracted war, but would like a *fait accompli*. According to *Military Power,* in order to successfully accomplish their military strategy:

> China's leaders have placed a near-term emphasis on asymmetric programs and systems to leverage China's advantages while exploiting the perceived vulnerabilities of potential opponents—so-called Assassin's Mace (*sha shou jian*) programs.[29]

The Chinese have adapted Sun Tzu's ancient stratagems to today's strategic requirements. In this particular case, the doctrine is called "The Inferior Defeats the Superior." Michael Pillsbury has culled Chinese open source writings and described the process by which the Chinese will implement this assassin's mace program.

> In order to be successful at the doctrine of "The Inferior Defeats the Superior," China assumes it can initially lull the opponent into complacency, or deceive him to take steps that will help China win. The premises here are quite elaborate . . . These concepts of how "The Inferior Defeats the Superior" are claimed to be unique to China, and to have [sic] developed by Chinese strategists over thousands of years. For this reason, PLA authors employ extensive examples from Chinese ancient military campaigns which they claim are the heart of Mao's military doctrines. Westerners are presumed to be ignorant of these Chinese "lessons learned" about Assassin's Mace employment concepts and the doctrines of "The Inferior Can Defeat the Superior."[30, 31, 32]

Pillsbury further explains why the Chinese shroud assassin's mace programs in a veil of secrecy:

> . . . some of the doctrines are considered to be highly classified in China, especially as they are taught in classified courses in military operations in the senior PLA schools. Available open sources thus only hint at the full set of concepts of the Inferior Defeats the Superior. Nor do open sources necessarily provide a full set of Assassin's Mace Weapons, either. After all, the need to surprise and even paralyze the opponent is an explicit goal of both these weapons and this doctrine. It is hardly to be expected that they would be fully described for the opponent to read and study in advance.[33]

Having gained awareness of one of China's assassin's mace concepts and how the Chinese leadership has intentionally shrouded it in secrecy, one can better understand that Chinese military developments, as seen by Western observers, may indeed only be what the Chinese want outside observers to see.

The Chinese do not try to hide the fact that they have been downsizing the PLA's end strength. The most recent troop reductions brought the PLA down to 2.3 million personnel. That figure is almost identical to that of the U.S. Armed Forces. It is interesting to note that a country of over 1.3 billion people has the same number of soldiers as the United States with a population of only 300 million.

There are other sweeping changes occurring in China's military. The PLA, PLAN (navy) and PLAAF (air force) are undergoing a Chinese version of Goldwaters-Nicols in order to function more along the lines of U.S. joint operations.[34] Additionally, the Chinese have coined a term:

> "informationalization" or what the United States calls "command, computers, control, communications, intelligence, reconnaissance and surveillance (C 4ISR)." The white paper stresses satellite and airborne sensors, unmanned aerial vehicles and information warfare.[35]

The Chinese have been funding these changes by increasing its military budget at a rate of 10 percent for the past 20 years.[36] This year's defense budget's increase is 18 percent over last year's.[37] There is more money for technology while there are fewer troops in the field.

Second Artillery's Place in China's Strategy

As the CMC drastically reduces personnel strength[38] while continuously increasing the military budget, is it possible for an outsider to perceive any implications for the role of nuclear weapons in the grand strategy? The answer to this question would be found in the repository of Chinese nuclear weapons, the PLA's Second Artillery Corps (Second Artillery), also known as the Strategic Missile Force. Second Artillery operates China's land-based and tactical ballistic missiles, strategic nuclear weapons and conventionally armed SRBMs.[39] It is composed of 100,000 officers, NCOs and conscripts and is the smallest of the various branches and services

in the PLA's order of battle.[40] Its nuclear inventory is approximately 400 warheads—280 strategic and 120 tactical.[41]

It should be noted that being the smallest branch of the PLA, Second Artillery actually increased in numbers despite the troop reductions cited above. Second Artillery controls its own budget. Additionally, the budget for its nuclear weapons has reportedly been constantly maintained at five percent of the overall defense expenditure,[42] which is a not a paltry sum considering that the defense spending was estimated to be between $50-80 billion this year.[43]

What do these well-funded forces contribute to China's defense? According to the *White Paper,* "Second Artillery Force organizes and commands its own troops in case of launching nuclear counterattacks with strategic missiles and conducting operations with conventional missiles. Under it are missile and training bases, and . . . support troops."[44]

Evan S. Medeiros noted in *Evolving Nuclear Doctrine*: "Indeed, the nuclear counterstrike campaign is the only nuclear contingency that the PLA leaders has identified for the Second Artillery."[45] China's entire nuclear arsenal is estimated at approximately 400 warheads.[46] Presently, it is assumed that virtually all operational and deployable warheads in their nuclear arsenal are in Second Artillery's hands. Why? The airborne leg of their proto-triad is composed of 100 B6 BADGER (1965 vintage) and 30 A-5 FANTAN (1970 vintage) aircraft. It is unclear if these platforms are still assigned to strategic strike missions.[47] Additionally, the problem-plagued, 1980s-vintage, XIA-class, (Type 092) SSBN (nuclear-powered ballistic missile submarine) never successfully performed one patrol and, therefore, still does not pose a credible threat. However, the *White Paper* stated that the "Navy aims at gradual extension of the strategic depth for offshore defensive operations and enhancing its capabilities in integrated maritime operations[48] and nuclear counterattacks."[49] Supporting the *White Paper*, Lt. Gen Mi Zhenyu, senior strategist at China's Academy of Military Science wrote: "China's political and economic focus lies on the coastal areas [and] for the present and a fairly long period to come, strategic focus will be in the direction of the sea."[50] In 2006, the PLAN launched two new JIN-class (Type 094) SSBNs that are expected to be deployment-ready by the end of the decade.[51]

"Improve the Survivability of the Strategic Nuclear Weapons"

There are other dramatic changes occurring within the Chinese nuclear forces, changes that have been on-going for decades at a modest pace. Have the Chinese told outsiders what their strategy would be regarding the upgrade of their forces? In 1989, then-deputy commander of the Second Artillery, Major General Yang Huan, published a paper on the Defense Industry of China informing the world of China's intentions:

> . . . we should improve current weapons to raise the quality and the comprehensive fighting capability. Science and technology should be our guideposts. . . strengthening the study of single-item high technology weapons. We should work hard on the survival, fast reaction, accuracy, and break-through and high-command technologies for weapons systems. These should be the direction for the development of our strategic nuclear weapons.
>
> - Improve the survivability of the strategic nuclear weapons . . .
>
> We should strengthen research on small, solid fuel and highly automated mobile missiles and on the technology of invisibility, for reinforcing defense work against nuclear or nonnuclear strike; and improve the survivability of missiles before launch and in flight . . .
>
> - Improve the striking ability of strategic nuclear weapons . . .
> - Improve the penetration technology of strategic weapons.[52]

There is seemingly no deception intended in General Yang Huan's words. In fact, he actually provided a litany of items on Second Artillery's things to do list. Since his article appeared 18 years ago, China has been able to introduce road-mobile, strategic, nuclear-tipped ICBMs, the DF-31 and the extended-range DF-31A, which may target of most the world, including the continental United States.[53] These missiles are solid-propellant—a major improvement over the previous liquid-fueled missiles. Another significance of that upgrade is that China's ICBMs are no longer confined to silos. Additionally, launch times have been reduced from several hours to minutes, since there is no requirement to fuel the missiles immediately prior to launch with highly-corrosive, liquid rocket fuel.[54] It is obvious that making nuclear ICBMs solid fueled and road-mobile tremendously increased their survivability. Another open source document in the Liberation Army Daily from 30 May 2001 praised the then-new Russian road-mobile ICBM calling it an assassin's mace weapon: '". . . that could ensure "the most reliable" nuclear retaliation."'[55]

As mentioned above, the sea-based leg of their triad has also been upgraded with the addition of the JIN-class SSBNs, which will carry the naval version of the DF-31—the JL-2 SLBM. The XIA SSBN was designed to carry 12 JL-1 SLBMs and the JIN was designed to carry 16 JL-2 missiles.[56] The addition of the nuclear-powered JINs armed with nuclear-tipped SLBMs will provide the CMC with an additional, survivable nuclear option in its grand strategy.[57]

A review of the items on General Yang Huan's list mentioned above shows that many of those items have been acquired: they have improved current weapons to raise the quality and the comprehensive fighting capability, they have improved the survivability of strategic nuclear weapons, and they have obtained small, solid fuel and highly automated mobile missiles. One hears on TV commercials: Yang Huan also called for improving the striking ability of strategic nuclear weapons as well as improving the penetration technology of strategic weapons. In this case, the Chinese are waiting to see how effective the U.S. national missile defense (NMD)[58] system will be. As discussed in the hedging strategies above, the Chinese will not be able to design countermeasures for the NMD system until they (and the United States as well) know if it will really work. According to Saunders:

> Chinese responses to BMD could consist of three categories of programs: expansion of China's current BM forces, technical countermeasures to penetrate and defeat U.S. BMD system, and the possible use of asymmetric measures such as the development of ASAT weapons to attack key components of the U.S. system.[59]

The Chinese have proven themselves to be capable of creating and deploying military technology without the advanced knowledge of foreign intelligence services. For example, Bill Gertz wrote about China's Yuan-class submarine that was built secretly and completely underground.[60] China also fired a warning shot across the bow of countries possessing space-based intelligence satellites by successfully destroying an old Chinese weather satellite with an ASAT.[61] If the Chinese can successfully hide the construction of a submarine, successfully launch its ASAT, and deploy road-mobile ICBMs with miniaturized warheads, can they develop other assassin's mace weapons without their adversaries' knowledge?[62] An affirmative answer would suggest that hedging will also continue on all sides, since no side can be certain of what the other side is doing and, therefore, cannot base its security on the belief that it knows everything that the other side might do to improve its relative position.

No First Use—Three Cases of Non-applicability

Having presented the nuclear components now at the disposal of the CMC, what strategy have they developed, and are currently employing, to protect their national sovereignty and dignity? The Chinese and the United States as well know that China possesses a limited amount of nuclear weapons. They must not only attempt to deter attacks on Chinese territory, but must also be prepared to prevail in a conflict over Taiwan, if that contingency presents itself. The strategy

previously mentioned, "The Inferior Defeats the Superior," is their game plan for defeating the United States in a short-term, limited conflict in which the employment of nuclear weapons is not excluded.[63] To achieve success in this scenario they must adapt Sun Tzu's stratagems to today's battlefield and diplomatic conditions. In their open source writings, they have already provided precise information on their intentions. Has the United States been paying sufficient attention to their rhetoric? Despite myriad public announcements, the Chinese have nonetheless indicated that nuclear weapons may play a role in their grand strategy; even if they are not attacked first. The *White Paper* reiterated their long-standing pledge:

> China remains firmly committed to the policy of no first use of nuclear weapons at any time and under any circumstances. It unconditionally undertakes not to use or threaten to use nuclear weapons against non-nuclear-weapon states or nuclear-weapon-free zones, and stands for the comprehensive prohibition and complete elimination of nuclear weapons.[64]

Numerous documents indicate that future Chinese actions may belie their words regarding No First Use. There are three cases worthy of closer scrutiny:

1. The Case of Taiwan.
2. The Case of Retaking Disputed Chinese Territory (India and Taiwan).
3. The Case of Taking a Tactical First Strike after Strategic/Political First Strikes has been made by an Adversary.

The Case of Taiwan

China does not consider Taiwan to be a foreign country, but rather a renegade province. In his address to the U.S. Army War College in 1997, LTG Li Jijun, vice president the PLA's Academy of Military Science, stressed

> The Taiwan issue is an internal Chinese affair to which the People's Republic of China favors a peaceful solution through reunification. But China cannot commit itself to the renouncement of the use of force as a final resort to halt foreign intervention or the independence of Taiwan. Therefore, force is also the guarantee that the Taiwan issue might be resolved peacefully. For the Chinese government and people issues concerning our national sovereignty are not subject to reconciliation or negotiation.[65]

In fact, numerous Chinese officials have clearly stated NFU is off the table in this case. For example, Sha Zukang, a former chief PRC arms control official within the Ministry of Foreign Affairs stated that: "the Chinese promise of 'no-first-use' is not applicable to Taiwan as Taiwan is a national territory of China."[66] Other statements include a PRC official discussing nuclear retaliation over Taiwan during the 1996 crisis, stating that U.S. leaders ". . . care more about Los Angeles than Taiwan."[67] In 2005, Chinese General Zhu Chenghu also suggested that China might use nuclear weapons against the United States in the event of a conflict over Taiwan.[68] China has a nuclear assassin's mace weapon tailor-made for employment against Taiwan—its neutron bomb, tested in 1988. "This weapon would be ideally suited for use against Taiwan because the neutron effects kill people and leave the surroundings unharmed."[69] Chinese analysts have reportedly considered how to employ neutron weapons against Taiwan while keeping the United States strategically deterred from interfering in the conflict.[70] Such statements clearly indicate that China does not consider the principle of NFU applicable to Taiwan. Has this message been received clearly in Washington? The authors of The Science of Military Strategy stress that the

> Taiwan issue is the largest and the last obstacle which we must conquer in [the] Chinese people's path to rejuvenation in [the] 21st century, and it is by all means the most important in our national security strategy in this century.[71]

The Chinese are officially telling the world that their top national security strategy priority is Taiwan. This is an example of China's strategic signaling to the Pentagon.

The Case of Retaking Disputed Chinese Territory (India and Taiwan)

As previously presented, China has several on-going border disputes. Would China's NFU apply in the case of a flare up over disputed territory? Retired Indian Brigadier Vijai K Nair is convinced that the answer is no. According to Nair:

> This is because Beijing, while insisting that its nuclear weapons are exclusively "defensive" in nature and focused only on deterring the possibility of nuclear coercion by other NWS's, has an added proviso that nuclear weapons have a role in preserving its sovereign territorial integrity, thereby extending their use in any military operation it may launch to wrest the territory it claims from India.[72]

As stated previously, the Sino-Indian War occurred in 1962 and China did not test its nuclear weapon until 1964, so there has been no real test of the so-called proviso. However, Nair continued:

> Given these strategic parameters it is important to appreciate the developing nature and capabilities of China's Armed Forces and their potential to achieve and maintain China's national security interests. The military structure in China is divided into two broad categories—conventional and strategic nuclear forces—with present day dependence on the former as the nuclear force structure continues to evolve into a viable policy instrument.[73]

China's grand strategy, therefore, must also factor in border disputes. Its nuclear inventory includes 300-350 CSS-6 SRBMs (short-range ballistic missiles) with a range of 200-600 km. The CSS-6 carries a 10-20 kilo ton nuclear warhead.[74] As in the case of Taiwan, the CMC must consider not only the political results of using nuclear weapons on its borders, but also the physical effects that would be generated by a nuclear blast. What benefit is gained by destroying one's own territory to keep it out of the unfriendly hands, other than maintaining national dignity and honor?[75] The Chinese may also elect to use assassin's mace technologies (e.g., neutron bombs) in such a scenario. Another point that the CMC might make in this case is that if Taiwan would be occupied by U.S. defenders, Taiwan, *ergo,* would become disputed territory as well, and thereby subject to internal Chinese, and not external NFU rules.

The Case of Taking a Tactical First Strike after Strategic/Political First Strikes have been Made by an Adversary

This case exudes Sun Tzu's application of stratagem and deception. What message do the Chinese authors really mean to convey? The wording is quite vague. Are they revealing their intention to perform a tactical first strike (a euphemism for first use?) in response to a perceived political/strategic first strike by the adversary? Such was the logic behind China's so-called "retaliatory invasion" of Vietnam in 1979. *The Science of Military Strategy* states:

> Under high-tech conditions, for the defensive side, the strategy to gain mastery by striking only after the enemy has struck does not mean waiting for enemy's strike passively. 'Striking only after the enemy has struck' in strategy is based on the 'victory in

> advance' of comprehensive national defense construction. It is the means to win political and moral initiatives. . . 'the first shot' on the plane of politics and strategy must be differentiated from 'the first shot' on the plane of tactics. . . if any country or organization violates the other country's sovereignty and territorial integrity, the other side will have the right to 'fire the first shot' on the plane of tactics. The military counterattacks may be taken by the following options: to drive the invaders out of the territory; or to launch the same attacks on the enemy's homeland; or to attack the enemy's foreign military bases, targets at sea or in the air.[76]

There are far greater and graver ramifications emanating from this rather obtuse passage. If the Chinese actually consider conducting first strikes, or as termed in the passage "counterattacks" (possibly with nuclear weapons),[77] U.S. forces would be at risk. The passage says that they would attack ". . . the enemy's foreign military bases." That could entail violating their negative security assurances also, since the only applicable U.S. bases in the region are located in non-NC countries Japan and South Korea.[78] The intent of the Chinese passage begs further intensive discussion. Have the Chinese tipped their hand by revealing their thinking on first (nuclear) strike and other topics?[79] In addition to this layer of possible deception, the reader must understand that what the Chinese say may not be what will actually be done in a crisis. It is not in China's national interest for its adversaries to know their grand strategy and the role of nuclear weapons in it. Open source documents provide a treasure trove of information to the careful reader.[80]

Coercive Deterrence

Having presented three cases in which the CMC may consider abrogating its NFU pledge, the composition of their nuclear deterrent forces must be considered to understand the current and possible future trajectory of their grand strategy. The discussion above showed that China possesses a modest nuclear arsenal compared to those of the United States and Russia, although to put things in proper perspective, the Chinese may boast the world's third largest inventory of nuclear weapons. The CMC knows that it cannot beat the United States in an all out nuclear exchange. However, China's leaders have thought about how to successfully defeat the United States in their "The Inferior Defeats the Superior" strategy.[81] They explain details of their strategy in *Coercive Deterrence* as they list their weaknesses and strengths: "the operational radius of the Chinese aviation force is limited, and the Navy does not have big carriers . . . a missile weapon force . . . with strong defense capability and wide range flexible firepower, plays a crucial military deterrence role."[82] The *Coercive Deterrence* authors state that: "Military deterrence by missile forces is a confrontation of strength and determination, as well as a contest of stratagem and wisdom."[83] They stress the virtues of denial and deception:

> First, combine "keeping" and "leaking" secrets to let the other side know that we have strong deterrence forces, but not the specific real situation of our forces. Secondly, reasonably arrange the deployment of the real and unreal forces by placing the real forces in false forces and vice versa, and mixing the real and false forces, as well as blending true and false targets, true and false positions, true and false intelligence, and true and false action so that the enemy will have a hard time to make decision and out [sic, NB: probably a typo and should be: our] side will achieve the effect of "winning by deterrence."[84]

Alastair Johnston focused on the "Chineseness" of China's deterrence strategy based on minimalism, ambiguity, flexibility and patience.[85] The Chinese have attempted to hide their weaknesses while they have flaunted their strengths. This demonstrates Sun Tzu's arts of war in action.[86]

China's military position *vis-à-vis* the United States' overwhelming preponderance of power is indeed precarious. One could argue that China had no choice but to develop such a strategy. Stephen M. Walt cited a PRC official's lament regarding America's might: "How can we base our national security on your assurances of goodwill?"[87] That particular Chinese official, one would assume, was familiar with Sun Tzu's teachings, and had based his comment on them on Sun Tzu's admonition not to leave one's fate in the hands of the enemy. Straying only briefly from the realm of nuclear weapons, it should be noted that Chinese leaders are also examining complementary technologies that could be brought to bear in a crisis to further weaken an adversary, albeit if only temporarily. *Unrestricted Warfare* was written by two Chinese senior colonels in 1999. In addition to assassin's mace weapons, these PLA officers also discussed using information warfare against adversaries. Devastating results could be achieved though cyber warfare. They wrote that:

> With technological developments being in the process of striving to increase the types of weapons, a breakthrough in our thinking can open up the domain of the weapons kingdom at one stroke. As we see it, a single man-made stock-market crash, a single computer virus invasion, or a single rumor or scandal that results in a fluctuation in the enemy country's exchange rates or exposes the leaders of an enemy country on the Internet, all can be included in the ranks of new-concept weapons.[88]

That the CMC is pursuing myriad paths directed at confounding possible U.S. actions is clearly shown in open source documents. The Chinese are also examining ways of defeating the U.S. NMD system as previously discussed. According to Brigadier Nair, it is:

> . . . China's aim to project itself as being equal with the United States to preclude the possibility of intrusive diplomacy through nuclear coercion. While China is not on par with the United States, its leadership does have a meaningful deterrent at its disposal and continues to expand this power base without let up.[89]

Other authors echo Nair's thoughts. For example, Willner and Bolt write:

> China's priority in the near term will be on building a more survivable force, one less vulnerable to first strike and one that maintains a secure second strike capability. While continuing to cloak its efforts in secrecy and ambiguity, China's nuclear planners want to build a modern force designed to deter and prevent potential nuclear adversaries from coercing Beijing in a crisis. Indeed the buildup is aimed . . . not only to survive but to win a limited war.[90]

The Chinese Gambit

The limited war would, one assumes, be fought over Taiwan. This is where the flashpoint would be in a Sino-U.S. confrontation. Numerous Chinese articles describe how they would locate U.S. aircraft carriers.[91] Pillsbury cited Chinese research on using Over the Horizon radar (OTH) to initially locate carriers, called "slowly moving objects" in the article, and then employs the precision tracking systems mentioned above to prosecute them.[92] The Chinese have studied the possibility of attacking U.S. carriers while they are still 2,000 or more kilometers from Taiwan. If they can succeed in locating the carriers far from Taiwan using the combined OTH, and long-range surveillance platforms, and then employ precision-guided missiles or cruise missiles to destroy them, the United States would have an extremely complicated task in repelling an invasion of Taiwan.[93] This would be another example of assassin's mace technology applied.[94] The Chinese missiles attacking the carrier strike group could be nuclear-tipped according to the cases and documents cited above. Simultaneously, China's new JIN-class SSBNs could be lurking within firing range of mainland U.S. targets, while U.S. foreign bases in Japan and Korea would be well within range of Chinese land-based missiles. If the Chinese

struck the carriers and rapidly invaded Taiwan, would the United States opt to retaliate against Chinese targets? If so, would the United States deem that strikes on mainland China would offset Chinese attacks on Los Angeles? Would the U.S. NMD shield successfully intercept the Chinese SLBMs? Would the United States take that chance? Such decisions would be the crux of the matter, and the key to the China's Inferior Defeats the Superior strategy. In 1997, General Liu Jingsong advocated the Inferior Defeats the Superior strategy of using first strikes, attacks on carriers, assassin's mace weapons, and the benefits of rapid and decisive actions.[95] A credible Chinese deterrent would exist (i.e., would the United States want to trade Los Angeles for Taipei). The Chinese gambit might succeed indeed.[96]

Future Trends

The Chinese could further confuse the issue prior to any hostile acts by following Russia's lead regarding NFU. Russia abandoned its NFU pledge when NATO expanded to its borders.[97] Moreover, Chapter 7 "Adapting U.S. Strategic Forces" of the Annual Report of the Secretary of Defense to the President and Congress, 2002, an unclassified summary of the January 2002 Nuclear Posture Review:

> concluded that deterrence should not be limited to the threat of retaliation, nor rely exclusively on nuclear forces. . . Replace the Strategic Triad of the Cold War with a New Triad that integrates conventional and nuclear offensive strategic strike capabilities, active and passive defenses, and a responsive infrastructure to provide a more diverse portfolio of capabilities against immediate, potential and unforeseen contingencies.[98]

In essence, China as well as others was put on notice that the United States too would no longer follow a no first use policy, and could employ small nuclear weapons as well as its new and highly accurate guided conventional missiles.[99]

Therefore, if China would follow the Russian and American moves and formally abolish NFU, its deterrence posture would become more ambiguous and menacing. Perhaps that is why China has been dropping those not-so-subtle hints at NFU's inapplicability to Taiwan, to the disputed territories, and to the first tactical strikes—the aforementioned three cases. However, as long as China continues to adhere to NFU, it does retain the moral 'high ground' on this issue. The CMC must decide which path to follow and when to change course. There seems to be no reason for China to abandon its NFU policy. Again, what China says for public consumption and propaganda value may not be what China does when forced to decide when to employ "counterattacks."

Do Beijing's planners actually believe that The Inferior Defeats the Superior strategy would work? In a best case scenario, it would play out exactly as planned for China, and its invasion scenario of Taiwan would become a *fait accompli*.[100] The U.S. would not fire a shot.[101] The role of nuclear weapons in China's grand strategy would have been proven to be sufficient to accomplish its limited and modest requirements. Sun Tzu's aphorisms "If you know the enemy and know yourself, you need not fear the result of a hundred battles," and "Hence to fight and conquer in all your battles is not supreme excellence; supreme excellence consists of breaking the enemy's resistance without fighting."[102] In 1994, 11 years prior to the publication of *Coercive Deterrence* and 2,544 or so years after *The Art of War* appeared, Senior Colonel Shen Kuiguan, professor at the PLA Air Force Command Institute in Beijing, described the basic concept of Inferior Defeats the Superior strategy.

> Usually, certain internal structures, certain parts or links of the superior side may be comparatively weak, and with the inferior side, there may also be some aspect or links which it has an advantage that is missing in the other side. To attack the weak part of the enemy with our strong force will undoubtedly result in victory.[103]

However, another consideration that the Chinese strategic planners must consider is that improvements in U.S. weapons accuracy make conventional weapons just as destructive as small-yield nuclear weapons. The Chinese are aware that U.S. nuclear weapons engineers are designing deep-penetration weapons that will be capable of destroying deep underground bunkers and other hardened facilities.[104] The CMC faces quite a daunting task—to create a grand strategy capable of countering the ever-changing threats posed by U.S. advances in technology. Even if the Chinese could leapfrog forward, they would not be able to leap far enough to surmount the technological obstacles being placed in their path by the Pentagon.[105] For example, if the U.S. NMD system is successfully deployed along with its affiliated Theater Missile Defense (TMD) systems in Asia, the Chinese ability to launch "counterattack" strikes (implying that first strikes have already been made in the strategic and diplomatic realms) would be severely at risk. Also, with precision-guided conventional missiles, the United States could launch non-nuclear strikes and neutralize Chinese missiles in their silos and on their launchers. The Chinese, even if they wished, would not be able to successfully respond for the two reasons just given—the first, because of the NMD/TMD shields, and second, because the Chinese missiles would be destroyed on the ground. Additionally, the Chinese do not have an adequate early warning system capable of detecting inbound missiles and warheads.[106] Such an early warning system would entail great expense if the Chinese elect to pursue that goal.

Perhaps the authors of The Science of Military Strategy did state the truth that ". . . no national strategy has been formally issued so far." Their target strategy (i.e., to deter the U.S) has proved to be far too elusive for any single strategy, requiring that a comprehensive strategy be formulated. They seem to be pacing their nuclear weapons advances with the deployment of the U.S. NMD system. Advances in the Pentagon's "assassin's mace" weapons are outpacing theirs. Brigadier Nair noted that:

> China is extremely sensitive to the nuclear disposition of potential opponents. Russia and the United States are eons ahead in the nuclear arms race and no amount of arms limitation accords are likely to alter that equation appreciably for quite some time.[107]

Chinese Diplomatic and Technological Maneuvers

As stated in the *White Paper*, the Chinese do not want to get ensnared in a costly and possibly destructive arms race. By acceding to arms control treaties, the Chinese may have hoped that such international regimes might somehow slow down U.S. technological advances. The Chinese, however, were dismayed when the G. W. Bush administration withdrew from the Anti-Ballistic Missile Treaty in 2002, and when the U.S. Senate refused to ratify the Comprehensive Test Ban Treaty.[108] The great writing on the wall for the CMC concerning the U.S. stance on nuclear weapons was clear—any attempt to reach parity with the United States was simply impossible; trying to keep pace with the United States advances was the only viable, albeit perhaps also futile, approach.

Numerically modest, the Chinese nuclear deterrent force could be neutralized by U.S. missiles in their silos as well as on their mobile launchers. However, if the Chinese could launch their missiles on warning or while under attack, they might, at least, have a chance of impacting their targets. That topic again raises the question of the reliability and accuracy of the U.S. and Allied NMD/TMD shields.

How are the Chinese planning to defend against or defeat this threat to their "retaliatory" strikes?[109] They are hoping that the U.S. NMD will fail and, therefore, will have cost the United States billions of dollars with not a pound of defense gained.[110] Hope, unfortunately, is not a strategy that Sun Tzu mentions in his writings. Chinese officials have discussed ways of defeating the NMD by adding many more missiles to their inventory,[111] by adding multiple independently targetable reentry vehicles (MIRVs), by using decoys and chaff, by improving C 4ISR (called

informationalization by the Chinese), by electromagnetic pulse (EMP) generating weapons,[112, 113] and other counter measures.[114]

> Coercive Deterrence faintly alluded to China's interest in developing its own BMD. Currently, countries such as the United States, Russia, and Israel have rapid development of anti-missile defense systems, possessing a certain degree of missile intercepting capability. *China is at the beginning stage*. The TMD, NMD missile defense system built by the United States in the future will have very strong deterrence effect.[115] (Emphasis added.)

What did the authors of Coercive Deterrence imply by that terse statement? Is China is at the beginning stage of NMD/TMD? Will they again look to their usual source of inspiration and assassin's mace technology— Russia? A BMD system would require an early warning system, as previously mentioned. It would also require interceptor missiles. Will the Chinese elect to deploy nuclear-tipped ABM interceptors to defend key sites such as Beijing and the ICBMs silos and mobile launchers? The U.S. had such a system in the 1960s, and Russia's ABM-Treaty approved interceptor sites are still situated along Moscow's ring road.[116] The development of a Chinese ABM system would give the CMC some assurance that its ICBMs might survive an attack, but would in no way assure that, if launched, they would successfully strike their targets, since they would have to penetrate the U.S. NMD shield. An ABM system protects existing assets and is defensive in nature. The Chinese have also said that they can improve missile survivability by adding more and improved missiles to the inventory—thinking that there is safety in numbers, that is, the more missiles inbound against U.S. targets the more stress on the NMD).

The modernization of the China's strategic missile forces improves the CMC's nuclear strategy, even if no more missiles are added. Brad Roberts contended that:

> China's force will grow more capable even if it does not increase numerically. The future force will be more alert (because the warheads will travel with mobile systems), better able to survive preemptive attack, more capable of launch under attack, more accurate , more capable of penetrating or overwhelming U.S. defenses, and more threatening to U.S. allies in the region.[117]

China's Trajectory

China's gradual acquisition of new as well as an overall modernization of existing weapons systems is in keeping with its grand strategy, or what can be assumed to be called its grand strategy (*While no national strategy has been formally issued so far* its contents are embodied in a series of general and specific policies worked out by the Chinese Communist Party and Chinese government).[118] The precise trajectory of Chinese military nuclear expansion will be known only to Beijing and leaves much room for interpretation, however, the trends are clear—keeping pace with U.S. advances in myriad areas of technology. The Science of Military Strategy gave an example of how precision guided weaponry (visible light, infrared, microwave, millimeter wave and lasers) can all be jammed.[119] U.S. weapons systems rely heavily on such technology. Pillsbury observed that at a 1997 arms bazaar in the United Arab Emirates, the Chinese exhibitors were selling false laser target generators to counter U.S. precision strike weapons systems.[120] It is clear that the Chinese are targeting specific U.S. systems as well as taking measures to avoid overhead satellite reconnaissance of their actions.[121] These actions reflect Sun Tzu's use of stealth, and denial and deception to keep the adversary unaware of one's intentions and actions.

Such actions reinforce China's ability to maneuver without being seen in order to strike. Referring to the discussion of Taiwan above, The Science of Military Strategy admonished its readers:

> Adhering to active strategic counterattack on exterior lines, we should do all we can to dominate the enemy by striking first. Once the enemy invades our territory and offends our national interests, it means that the enemy has already fired the first shot strategically and crossed the border of our strategic defense. Then, we get the freedom to conduct self-defense operations. As long as the battlefield is concerned, we should not passively fight against the enemy in our border regions, coastal regions and related air space. On the contrary, after the launching of the war, we should try our best to fight against the enemy as far away as possible, to lead the war to enemy's operational base, even to his source of war, and to actively strike all the effective strength forming the enemy's war system.[122]

These comments could be interpreted to mean that the Chinese NFU policy has been abandoned due to the perception that its territory had already been violated. If such would be so, then that policy seems to conflict with Chinese policy as perceived by Mark Stokes.

> The PRC's strategic nuclear doctrine is based on the concept of limited deterrence—the ability to inflict unacceptable damage on an enemy in a retaliatory strike. China's nuclear forces generally are believed to follow a countervalue strategy that targets population centers. China has sufficient nuclear weapons to hold approximately 15-20 million U.S. citizens at risk, or about 5-10 percent to the total U.S. population.[123]

Perhaps the disparity is intentional: the CMC is sending vague signals to purposely confuse potential adversaries in order to weaken their options while simultaneously strengthening China's options. To further complicate this already muddled topic, Pillsbury referenced the January 2000 issue of China's Military Digest featuring an article on deterrence highlighting that "limited and effective nuclear strikes can be Assassin's Mace weapons to contain the enemy."[124] The undergirding themes of the Chinese grand strategy resonated in General Yang Huan's writings.

> In an era when space technology is developing rapidly and a defense system with many methods and many layers is appearing, we should pay special attention to the study of break-through technology. To sum up, we conclude that the development of strategic nuclear weapons is one main aspect in strengthening national defense and is an important symbol of modernization of our military. In future development, the advanced qualities of strategic weapons will rely to a large degree on the development of the high technology and reflect the comprehensive power of a country. . . We should strive to build a small in number but effective strategic missile corps with Chinese characteristics . . .[125]

The Chinese have done what was addressed in the Second Artillery's deputy commander's proposals. China is improving its military and military-related systems non-stop. The CMC does not want to sacrifice economic advancement to an arms race and thereby jeopardize China's comprehensive national power, but has continued to robustly fund the PLA. China has acquired modern technologies through indigenous production, reverse engineering, direct purchase, intelligence collection and theft (spying); all in keeping with Sun Tzu's teachings.[126, 127] However, such actions still cannot overcome its position of relative inferiority *vis-à-vis* the United States Pillsbury culled the following from Chinese assessments of their military posture.

> Several premises support the new strategy to develop Assassin's Mace weapons and to conduct future conflicts employing the doctrine of "The Inferior Defeats the Superior." Most importantly, there is a political-military premise behind this strategy. Its success depends on correct and detailed assessments of the opponent's weakest points and the best means to surprise and to shock him into paralysis [sic] the powerful opponent. The selection and design of Assassin's Mace weapons also depend on correct intelligence assessments of the opponent's most vital vulnerabilities, his "acupuncture points."[128]

China does not willingly reveal its weaknesses, but it does announce its strengths in order to maximize the gains achieved from the actions described above. China will also attempt to place pressure upon the enemy's perceived weak points to gain advantage.

If the CMC itself has not fully articulated its overall Grand Strategy internally, Western observers then can only speculate externally on what strategy the CMC is following—especially since the CMC is reportedly not following any agreed-upon strategy! The absence of knowledge of a Chinese strategy would leave U.S planners with the onerous duty of hedging against the worst possible strategy that could be adopted by the Chinese.[129] Such hedging could lead the United States in a direction convergent with the Chinese strategy. However, if the trajectories diverge, the United States could hedge in a completely opposite direction. In the latter case, U.S. planners could be confronted with a scenario for which they were completely unprepared. These scenarios would position the United States precisely where the Chinese stratagem of the "Inferior Defeats the Superior" intended it to be—off guard and off balance and perfectly positioned for swift and decisive assassin's mace strike.

Conclusions

This paper has surveyed current, open source materials on the role of nuclear weapons in China's grand strategy, and has discussed how the writings of Sun Tzu have informed that strategy. In recent wars China has picked its battles carefully, again reflecting Sun Tzu's teachings.[130] The CMC has woven Sun Tzu's thoughts into its grand strategy. The authors of The Science of Military Strategy quoted Sun Tzu in summing up the essence of their strategy: '"For enhancing the credibility of deterrence, one should have a well-defined objective in mind and "attack what the enemy is bound to save."'[131] That passage is a clear reference to their Inferior Defeats the Superior doctrine; included in which is the gambit of trading an American city, such as Los Angeles, for Taiwan in order to cause the United States to submit even before shots are fired. Open source writings are replete with Chinese pronouncements about and allusions to the role of nuclear weapons in their grand strategy. The CMC closely guards the secret details of its grand strategy. Perhaps, and as stated in their writings, no grand strategy has yet been officially agreed upon by the CMC. In any case, focused intelligence collection as well as careful analysis of Chinese open source materials is required to ascertain the trajectory of Chinese military progress, especially in regards to how it is pacing and attempting to leap frog U.S. NMD and other advancements. The U.S., too, cannot base its security on the assurances of others, and therefore, must continue to seek answers to its questions on the trajectory of China's Grand Strategy.

The contents of this paper reflect the author's own personal views and are not necessarily endorsed by the Naval War College or the Department of the Navy.

References

1. Sun Tzu Wu. *The Art of War*. Lionel Giles, trans. (Harrisburg, PA: Military Service Publishing Company, 1944), 40.

2. U.S. Department of State, "Treaty on the Non-Proliferation of Nuclear Weapons," March 5, 1970. *United States Treaties and Other International Agreements*, January 1, 2006). 21 UST 483; TIAS 6839; 729 UNTS 161.

3. U.S. Department of Defense, *Quadrennial Defense Review* (Washington, DC: Office of the Secretary of Defense, 30 September 2006), 29. "Of the major and emerging powers, 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 absent U.S. counter strategies. U.S. policy remains focused on encouraging China to play a constructive, peaceful role in the Asia-Pacific region and to serve as a partner in addressing common security challenges, including terrorism, proliferation, narcotics and piracy. U.S. policy seeks to encourage China to choose a path of peaceful economic growth and political liberalization, rather than military threat and intimidation." Emphasis added. Note: In the 2001 QDR, China is never mentioned. In the 2006 QDR, however, China is mentioned 16 times, and is spotlighted as the likely peer competitor—the replacement for the deposed Soviet Union/Russia as the main threat to U.S. primacy."

4. "China's White Paper on National Defense 2006," *Xinhua*, 29 December 2006, 5.

5. Evan S. Medeiros, "Evolving Nuclear Doctrine," in *China's Nuclear Future*, eds*.,* Paul J. Bolt and Albert S. Willner (Boulder, CO: Lynne Rienner Publishers, Inc., 2006), 48.

6. Ronald N. Montaperto, "Beijing's Perceptions of U.S. Intentions," in *China's Nuclear Future*, eds*.,* Paul J. Bolt and Albert S. Willner (Boulder, CO: Lynne Rienner Publishers, Inc., 2006), 137.

7. "China's White Paper on National Defense 2006," 6. "China has established and keeps improving a leadership and administration system for national defense in accordance with the Constitution, the National Defense Law and other relevant laws. The state exercises unified leadership over national defense activities. China's armed forces are under the leadership of the Communist Party of China (CPC). The Central Military Commission (CMC) of the CPC and that of the People's Republic of China (PRC) are completely the same in their composition and in their function of exercising leadership over the armed forces. The CMC chairman has overall responsibility for its work."

8. Author's note: It is noteworthy that there is no demarcated civilian control over the military in China as there is in the United States, but rather Party control is absolute.

9. John W. Lewis and Xue Litai. *Imagined Enemies: China Prepares for Uncertain War.* (Stanford: Stanford University Press, 2006), 257-58. "In the late 1980s, the Politburo Standing Committee reaffirmed the prime responsibility of the CMC in formulating national security strategy, and . . . began to establish new security-related groups and research organs to devise innovative strategic options and contingency plans for peace and war."

10. "China's White Paper on National Defense 2006," 5.

11. Note: The term "Chinese characteristics" appears in many translations of original Chinese military-related texts. In this case, it appears to signify that China is approaching the entire nuclear deterrence problem from its own perspective, and does not want to fall into traps or situations dictated by foreign powers.

12. U.S. Department of Defense, *Annual Report to Congress of Military Power of the People's Republic of China 2006* (Washington, DC: Office of the Secretary of Defense, 2006), 50.

13. Ting Wai, "The Potential Flashpoint: Taiwan," Bolt and Willner, *China's Nuclear Future*, 144-45.

14. Author's note: If China decides to eclipse Russia as the dominant nuclear power in Asia, then a massive upswing in defense expenditures would be in order. China has denied any interest in entering an arms race with the United States

15. Ting Wai, "The Potential Flashpoint: Taiwan," Bolt and Willner, *China's Nuclear Future*, 145, note 5.

16. "China's White Paper on National Defense 2006," 6.

17. Zhao, Xijun, ed., *Intimidation Warfare: A Comprehensive Discussion on Missile Deterrence* (Beijing: National Defense University Press, May 2005), 30.

18. Hans M. Kristensen, Robert S. Norris, and Matthew G. McKinzie, *Chinese Nuclear Forces and U.S. Nuclear War Planning* (Washington, DC: Federation of American Scientists and Natural Resources Defense Council, November 2006), 3-4.

19. Chen Jialu, "PRC Officials Back Report's Claim Pentagon Exaggerating China's Military Threat," *Beijing China Daily*, December 2, 2006.

20. Vijai K Nair, "China's Nuclear Strategy and its Implications for Asian Security," *China Brief* 4, No. 3 (February 4, 2004). "China is unique in adopting a strategy to develop nuclear weapons in precedence to conventional weapons. Former Defense Minister Zhang Aiping, in an article in the Party Journal, Red Flag, observed that "Defense funds should be concentrated upon those programs which are badly needed and the most important areas which affect the overall situation such as strategic guided missiles and centers for producing nuclear fuels and bombs."

21. Kristensen and McKinzie, *Chinese Nuclear Forces and U.S. Nuclear War Planning*, 4.

22. Ashton B. Carter and William J. Perry, "China on the March," *National Interest***,** March-April 2007, 16.

23. Peng Guangqian and Yao Youzhi, eds. *The Science of Military Strategy* (Beijing: People's Republic of China: Military Science Publishing House, 2005), 22.

24. Brad Roberts, "Alternative Futures," Bolt and Willner, *China's Nuclear Future***,** 188-89. "China provides almost no official information on the disposition and modernization policies for its nuclear forces."

25. Ashton B. Carter and William J. Perry, "China on the March," *National Interest***,** March-April 2007, 16.

26. Ashton B. Carter and William J. Perry, *Preventive Defense Project Letter*, March 20, 2007.

27. *Military Power*, 14.

28. Peng Guangqian and Yao Youzhi, *The Science of Military Strategy*, 465.

29. *Military Power*, 24.

30. Michael Pillsbury, "China's Military Strategy toward the U.S.: A View from Open Sources," November 2, 2001, 9-10. Pillsbury, Michael. "China's Military Strategy toward the U.S.: A View from Open Sources," November 2, 2001.

31. Sun Tzu Wu, 42. "All warfare is based on deception. Hence when able to attack, we must seem unable; when using our forces, we must seem inactive; when we are near, we must make the enemy believe we are away; when far away, we must make him believe we are near. Hold out baits to entice the enemy. Feign disorder, and crush him."

32. Author's note: Chinese chauvinism can be exploited to their detriment. Westerners too have written on this subject and many have taken it to heart. Bismarck said: "Only a fool learns from his own mistakes. A wise man learns from the mistakes of others."

33. Michael Pillsbury, "China's Military Strategy toward the U.S.: A View from Open Sources," November 2, 2001, 10.

34. Carter and Perry, "China on the March," 17.

35. Ibid., 18.

36. Ibid.

37. Carter and Perry, *Preventive Defense Project Letter*.

38. Author's note: In the 1980s, for example, the PLA had 7 million soldiers.

39. Phillip C. Saunders and Jing-dong Yuan, "Strategic Force Modernization," in *China's Nuclear Future*, eds.*,* Paul J. Bolt and Albert S. Willner (Boulder, CO: Lynne Rienner Publishers, Inc., 2006), 81-82.

40. Saunders, "Strategic Force Modernization," in *China's Nuclear Future*, 81-82.

41. Ibid, 82-83. According to Saunders, "China's tactical nuclear weapons may include artillery shells, atomic demolition munitions, and short-range missiles."

42. Vijai K Nair, "China's Nuclear Strategy and its Implications for Asian Security," *China Brief* 4, No. 3 (February 4, 2004).

43. Carter and Perry, "China on the March," 18.

44. "China's White Paper on National Defense 2006," 7.

45. Evan S. Medeiros, "Evolving Nuclear Doctrine," in *China's Nuclear Future*, 59.

46. Saunders, "Strategic Force Modernization," in *China's Nuclear Future*, 83.

47. Ibid., 82-83.

48. Author's note. The authors of *The Science of Military Strategy* (on page 441) stress that China has one million square kilometers of disputed maritime territory in addition to the land border disputes mentioned above.

49. "China's White Paper on National Defense 2006," 5.

50. Bernard D Cole, *The Great Wall at Sea: China's Navy Enters the Twenty-First Century* (Annapolis, MD: Naval Institute Press, 2001), 159.

51. Saunders, "Strategic Force Modernization," in *China's Nuclear Future*, 87.

52. Yang Huan, "China's Strategic Nuclear Weapons," in *Chinese Views of Future Warfare,* ed. Michael Pillsbury (Washington, DC: National Defense University, March 1997), 134.

53. *Military Power*, 27.

54. *Military Power*, 29. "It [China] currently deploys approximately 20 silo-based, liquid-fueled CSS-4 ICBMs, which constitute its primary nuclear means of holding continental U.S. targets at risk. In addition, it maintains approximately 20 liquid-fueled, limited range CSS-3 ICBMs that enable it to attack targets in the Asia region. China's "theater" nuclear force is made up of the CSS-2 IRBMs and solid-propellant, road-mobile CSS-5 MRBMs."

55. Michael Pillsbury, "China's Military Strategy toward the U.S.: A View from Open Sources," November 2, 2001, 16. "The June 2001 issue of Military Digest carried an article by Yun Zheng asserting that Russia has three Assassin's Maces with which to defeat the U.S.: an anti-satellite weapon; a plasma weapon; and its early warning satellites which could detect an attacking missile within 20 seconds." Author's note: One assumes that China would also pursue such technology, if it keeps with its past practice of imitation as the highest form of flattery.

56. Saunders and Jing-dong Yuan, "Strategic Force Modernization," in *China's Nuclear Future*, 87. Author's note: Other sources say that the JIN will only carry 12 JL-2s.

57. *Military Power*, 27.

58. Author's note. The acronym NMD applies to the U.S. system. Theater Missile Defense (TMD) applies the systems being established for U.S. assets and Allies overseas. BMD is the general term and can be used interchangeably with BMD or when referring to a possible Chinese system built to counter the NMD.

59. Saunders and Jing-dong Yuan, "Strategic Force Modernization," in *China's Nuclear Future*, 97-98. "Chinese potential BMD countermeasures are decoys, chaff, stealth technology to reduce IR/radar signatures, expect next generation of DF-31 to incorporate BMD countermeasures and possibly retrofit older DF-5A, DF-12A with countermeasures."

60. Bill Gertz, "China Sub Buildup." *Inside the Ring*, December 1, 2006.

61. Carter and Perry, "China on the March," 19, wrote: "China is stressing anti-satellite and information-warfare capabilities designed to deny U.S. forces the C4ISR that is their trademark. Reacting to this trend will require greater investment in satellite defense (through maneuvering, redundancy and other means.)."

62. Author's note: Such advances enabled the Chinese to miniaturize their nuclear warheads so that they could fit onto SLBM and road-mobile ICBMs. This progress was in keeping with Gen Yang Huan's 1989 admonition. In 1999, a group appointed by then-CIA director, George Tenet, concluded ". . . that China had obtained via espionage classified U.S. nuclear weapons information that probably accelerated its nuclear modernization program, had obtained at least basic design information on the W88, and had acquired information on a variety of U.S. weapons design concepts, including those of the neutron bomb." Citation from: Jeffrey A. Richelson, *Spying on the Bomb* (New York: W.W. Norton & Company, Inc., 2006), 418.

63. Bernard D. Cole and Paul H. B. Godwin," Advanced Military Technology and the PLA: Priorities and Capabilities for the 21st Century," In *The Chinese Armed Forces in the 21st*

Century, edited by Larry M. Wortzel (Carlisle, PA: Strategic Studies Institute, December 1999) 162. "A significant aspect of PLA research is the attempt to link selected strategies and/or military operations to counter a superior adversary."

64. "China's White Paper on National Defense 2006," 5.

65. LtGen Li Jijun, "T raditional Military Thinking and the Defensive Strategy of China" (Army War College, Carlisle, PA, 29 August 1997), 5.

66. Ting Wai, "The Potential Flashpoint: Taiwan," Bolt and Willner, *China's Nuclear Future*, 152.

67. Bolt and Willner, *China's Nuclear Future*, 5.

68. Ibid.

69. Ting Wai, "The Potential Flashpoint: Taiwan," Bolt and Willner, *China's Nuclear Future*, 158.

70. Ibid.

71. Peng Guangqian and Yao Youzhi, *The Science of Military Strategy*, 443.

72. Nair, "China's Nuclear Strategy and its Implications for Asian Security," *China Brief* 4.

73. Nair, "China's Nuclear Strategy and its Implications for Asian Security," *China Brief* 4.

74. Phillip C. Saunders and Jing-dong Yuan, "Strategic Force Modernization," in *China's Nuclear Future*, 83.

75. Peng Guangqian and Yao Youzhi, *The Science of Military Strategy*, 43. "'As national dignity is the key to national honor or shame, in a sense it is a symbol of a state's soft power around the world. Superficially loss of national dignity is an "emotional" humiliation instead of "material" damage, but the loss can gravely harm national security and development. As for a state when national dignity is humiliated, its influence and consequences sometimes may be graver than that of material damage. . . In fact, a state losing dignity internationally is bound to be a weak state, and cannot talk about sovereignty, security and development.'"

76. Peng Guangqian and Yao Youzhi, *The Science of Military Strategy*, 426.

77. Author's note: A preemptive first strike by the Chinese would be beneficial to survivability of their weapons, because if they were launched they could not be destroyed on their launchers.

78. Author's note: Footnotes 3 and 4 refer to China's pledge (negative security assurance) not to use nuclear weapons against non-NC members.

79. Author's note: The passage also refers to "targets at sea or in the air." U.S. aircraft carriers pose a major threat to China in a Taiwan scenario. The CMC has focused on this threat by increasing its submarine forces, purchasing wake-homing torpedoes from Russia, and discussing EMP weapons (Assassin's Mace weapons) that would blind ships, planes, and satellites by interrupting their communications and navigation (GPS) equipment. *The Science of Military Strategy* was published originally in Chinese in 2001 by the Academy of Military Science for senior Chinese officials. The English translation was published in China in 2005 and intended to provide foreign leadership insight into Chinese thought processes.

80. Mark A. Stokes, "Chinese Reactions to the New U.S. Initiatives on Missile Defense," in *China's Growing Military Power Perspectives on Security, Ballistic Missiles, and Conventional Capabilities, eds.,* Andrew Scobell and Larry M. Wortzel (Carlisle, PA: Strategic Studies Institute, 2002), 115. "In a future contingency in the Asia-Pacific region, PLA writings indicate intent to use highly accurate SRBMs, MRBMs, and land attack cruise missiles against U.S. assets, to include key bases in Japan and aircraft carriers operating in the Western Pacific. Chinese researchers have conducted extensive feasibility studies on the use of theater ballistic missiles against aircraft carriers. Analysts have noted how such a capability would require four components: ocean surveillance; mid-course guidance; terminal guidance; and applicable control systems to maneuver the reentry vehicle to the target."

81. Bernard D. Cole and Paul H. B. Godwin (Chinese Armed Forces), 162, also discussed this strategy. "A significant aspect of PLA research is the attempt to link selected strategies and/or military operations to counter a superior adversary."

82. Zhao Xijun, *Intimidation Warfare,* 27.

83. Ibid., 67.

84. Ibid.

85. Alastair Johnston, "'China's New "Old Thinking": The Concept of Limited Deterrence,'" *International Security* 20, no. 3 (Winter 1995-1996), 11.

86. Author's comment. While visiting a shopping mall, one could not but notice a large sign where a new storefront would open soon: "Please pardon the construction while we prepare to dazzle you." How *apropos* is that for China's on-going actions, especially with its EMP weapons?

87. Stephen M. Walt, "Taming of American Power," *Foreign Affairs* 84, no. 5 (September-October 2005), 107.

88. Qiao Liang and Wang Xiangsui, *Unrestricted Warfare* (Beijing: Liberation Army Literature and Art Publishing House, February 1999), 20. Translated by FBIS, January 2000. (For Official Use Only.)

89. Nair, "China's Nuclear Strategy and its Implications for Asian Security," *China Brief* 4.

90. Willner and Bolt, "China's Nuclear Future in a Changing Environment," in *China's Nuclear Future*, 9-10.

91. Author's note. Footnote 80 describes the components necessary to locate carriers.

92. Pillsbury, "China's Military Strategy toward the U.S.: A View from Open Sources," 27. Pillsbury cited: Chen Haidong, Yu Menglun, Xin Wenqing, Li Junhui, and Zeng Qingxiang, "Study for Guidance Scheme for Re-Entry Vehicles Attacking Slowly Moving Targets," *Missiles and Space Vehicles*, June 2000.

93. Author's note. P eng Guangqian and Yao Youzhi in *The Science of Military Strategy* wrote: "The typical pattern of operation under modern high-tech conditions is to strike precise blows in an asymmetric, non-contiguous and non-linear way by using joint stand-off striking weapons." 463

94. Ting Wai, "The Potential Flashpoint: Taiwan," Bolt and Willner, *China's Nuclear Future*, 152.

95. Michael Pillsbury, "China's Military Strategy toward the U.S.: A View from Open Sources," 13. "Particularly when weaponry is inferior, seizing the benefits of striking first, is of especially important significance to striving for battle and even warfare initiative. In this way, not only can you upset the enemy's war plan and operational preparations, reduce and check the enemy's high technology weapons superiority, and strengthen the combat effectiveness of our own army's "Assassin's Mace weapon," but also advantageously give full play to the existing power of our weaponry, if the attack was good, then it could even limit or postpone the effect and result of the war."

96. Author's note. Perry and Carter also noted that (p. 19-20): "China is buying modern integrated air defenses, including the Russian S-300, to prevent the United States from gaining air dominance in the strait or over China itself."

97. Ting Wai, "The Potential Flashpoint: Taiwan," 153.

98. U.S. Department of Defense, *Annual Report of the Secretary of Defense to the President and Congress, 2002*, 84.

99. Ting Wai, "The Potential Flashpoint: Taiwan," 165, Footnote 59, listed Iraq, Iran, North Korea, Libya, Syria, Russia, and China as the potential nuclear targets mentioned in the leaked NPR.

100. Author's note. LtGen Zhao Xijun was the deputy commander of the Second Artillery. In his journal piece "'Victory Without War' and Modern Deterrence Strategy," Beijing Zhongguo Junshi Kexue in Chinese, 31 October 2001, he extolled Sun Tzu's writings and provided examples of how that strategy could be applied to today's conflicts—especially Taiwan.

101. Michael R. Gordon and David S. Cloud, "U.S. Knew of China Missile Test, but Kept Silent," *TuscaloosaNews.com*, 22 April 2007. "Several Pentagon officials said they believed that the purpose of the [ASAT] test was to give the Chinese military the ability to blind American imaging satellites and hamper American military operations if there were to be a confrontation over Taiwan."

102. Sun Tzu Wu. *The Art of War*, 51 and 48 respectively.

103. Shen Kuiguan, "Dialectics of Defeating the Superior with the Inferior," in *Chinese Views of Future Warfare,* ed. Michael Pillsbury, 218.

104. Ting Wai, "The Potential Flashpoint: Taiwan," Bolt and Willner, *China's Nuclear Future*, 157.

105. S. K. Ghosh, ed., *China's Nuclear and Political Strategy* (New Delhi: Young Asia Publications, 1975), 17. Ghosh shows how rapidly China has improved its military forces by increasing the pace of modernization. "It thus took China less than three years, after the first nuclear test, to explode its first hydrogen bomb. Comparatively, the USA took more than seven years to explode its first H-bomb, the USSR four years, the UK 4.5 years and France 8.5 years" Author's note. Sun Tzu's Chapter 13 places a high value on spies. Consider the Chinese rapid miniaturization of nuclear warheads and the case of Wen Ho Lee and the W-88. See Jeffrey A. Richelson, *Spying on the Bomb*, 418.

106. Saunders, "Strategic Force Modernization," in *China's Nuclear Future*, 84.

107. Nair, "China's Nuclear Strategy and its Implications for Asian Security," *China Brief* 4.

108. Ting Wai, "The Potential Flashpoint: Taiwan," Bolt and Willner, *China's Nuclear Future*, 160.

109. Author's note. Remember that the Chinese have stated that they will take the first tactical shot if they feel that the enemy has taken the first strategic/diplomatic shot.

110. Eric A. McVadon, "Chinese Reactions to the New U.S. Initiatives on Missile Defense," in *China's Growing Military Power Perspectives on Security, Ballistic Missiles, and Conventional Capabilities, eds.,* Andrew Scobell and Larry M. Wortzel (Carlisle, PA: Strategic Studies Institute, 2002), 178. "There has been a bit of gloating among some of the specialists that the United States would likely proceed headlong and spend an enormous amount of money on a system not likely to work, and that, putting a finer point on earlier arguments, offensive missiles and imaginative penetration techniques were far easier and cheaper to devise and produce than defensive missiles and complex target discrimination technologies."

111. Brigadier Nair wrote: "Existing evidence suggests a greater spending on and securing of a "second strike" capability in terms of ICBMs, and a shift from a "minimum" to a "moderate" deterrence of about 900 warheads.

112. Author's note. Electromagnetic Pulse (EMP) generating weapons can be used over the heads of U.S. forces in vicinity of Taiwan. These weapons would disrupt aircraft and surface combatants' communications as well as deprive them of the GPS navigation and targeting information and satellite communications. This would be the so-called "Pearl Harbor in space." Submarines would not be affected by EMP.

113. Joe Buff, "China Myth Gets Dangerous," *Military.com*, 4 December 2004, http://www.military.com/opinion/0,15202,119963,00.html (accessed 15 April 2007). To support China's use of submarines and their immunity to EMP, Buff wrote: ". . . the only energy still fully useable for stealthy theater weapons targeting would be undersea noise propagation—sonar. Out in the blue water, big surface ships can be detected by submerged submarines, immune to the EMP, via deep sound channel effects at ranges of a hundred-plus miles."

114. "China's White Paper on National Defense 2006," 5. "The Second Artillery Force aims at progressively improving its force structure of having both nuclear and conventional missiles, and raising its capabilities in strategic deterrence and conventional strike under conditions of informationization."

115. Zhao, Xijun, *Intimidation Warfare,* 39.

116. Brad Roberts, "Alternative Futures," Bolt and Willner, *China's Nuclear Future*, 187.

117. Brad Roberts, "Alternative Futures," Bolt and Willner, *China's Nuclear Future*, 169-70.

118. Peng Guangqian and Yao Youzhi, *The Science of Military Strategy*, 22.

119. Peng Guangqian and Yao Youzhi, *The Science of Military Strategy*, 430.

120. Michael Pillsbury, "China's Military Strategy toward the U.S.: A View from Open Sources," 2 November 2001, 8.

121. Author's note. Peng and Yao discuss how the Iraqis "took advantage of the interval between two surveillance operations conducted by U.S. satellites to organize the maneuver and evasion." 430.

122. Peng Guangqian and Yao Youzhi, *The Science of Military Strategy*, 461.

123. Mark A. Stokes, "Chinese Reactions to the New U.S. Initiatives on Missile Defense," in *China's Growing Military Power Perspectives on Security, Ballistic Missiles, and Conventional Capabilities, eds.*, Andrew Scobell and Larry M. Wortzel (Carlisle, PA: Strategic Studies Institute, 2002), 110.

124. Michael Pillsbury, "China's Military Strategy toward the U.S.: A View from Open Sources," 14.

125. Yang Huan, "China's Strategic Nuclear Weapons," in *Chinese Views of Future Warfare*, 134-35.

126. Michael Pillsbury, "China's Military Strategy toward the U.S.: A View from Open Sources," 9. "'Superior intelligence information about the opponent is also vital, particularly as needed to anticipate the opponent's actions, to be able to lull and then deceive him, to disrupt his coalition, to build stealthily a counter coalition, and to strike at just the right moment under a concept known as "shi" or "propensity.'"

127. Peng Guangqian and Yao Youzhi, *The Science of Military Strategy*, 220. "'. . . information deterrence is the deterrence that depends on the powerful performance of information science and information technology, and it is output into effect by the momentum and power of information warfare. The best result the information deterrence pursues is to "subdue the enemy without fighting" (Sun Zi) and strive for winning the victory of war by confrontation without blood shedding.'"

128. Michael Pillsbury, "China's Military Strategy toward the U.S.: A View from Open Sources," 9.

129. Author's note. Absence of evidence of a Chinese Grand Strategy is not evidence of absence. However, all indications lead to the conclusion that the Chinese have indeed not yet formulated a Grand Strategy, so the U.S. must hedge in order to plan for worst case scenarios.

130. Author's note. U.S. Armed Forces confronted Chinese forces on the ground during the Korean as well as in the Vietnam conflicts—in both cases the sides supported by the Chinese forces were arguably successful. This aspect of Sino-American relations has received scant media attention. What is noteworthy in both of these cases is that China considered its options—the U.S. nuclear arsenal notwithstanding—and decided to come to the aid of its Communist brethren, and won.

131. Peng Guangqian and Yao Youzhi, *The Science of Military Strategy*, 225.

Bibliography

Bolt, Paul J., and Albert S Willner, eds. *China's Nuclear Future* Boulder, CO: Rienner, 2006.

Buff, Joe. "China Myth Gets Dangerous." *Military.com*, 4 December 2004.

Carter, Ashton B., and William J. Perry. "China on the March." *National Interest.* (March-April 2007): 16-22.

Carter, Ashton B., and William J. Perry. *Preventive Defense Project Letter*. 20 March 2007.

"China's White Paper on National Defense 2006." *Xinhua*, 29 Dec 2006.

Cole, Bernard D. "China's Maritime Strategy," in *People's Liberation Army After Next,* edited by Susan M. Puska. Carlisle, PA: Strategic Studies Institute, August 2000.

Cole, Bernard D, and Paul H. B. Godwin, "Advanced Military Technology and the PLA: Priorities and Capabilities for the 21st Century." In *The Chinese Armed Forces in the 21st Century,* edited by Larry M. Wortzel. Carlisle, PA: Strategic Studies Institute, December 1999.

Cole, Bernard D. *The Great Wall at Sea: China's Navy Enters the Twenty-First Century.* Annapolis, MD: Naval Institute Press, 2001.

Gertz, Bill. "China Sub Buildup," *Inside the Rin*g 1 Dec 06.

Ghosh, S. K., ed. *China's Nuclear and Political Strategy*, New Delhi: Young Asia Publications, 1975.

Gordon, Michael R., and David S. Cloud. "U.S. Knew of China Missile Test, but Kept Silent." *TuscaloosaNews.com*, 22 April 2007.

Guoqing, Wu. "Future Trends of Modern Operations." In *Chinese Views of Future Warfare,* edited by Michael Pillsbury. Washington, DC: National Defense University, March 1997.

Huan, Ch'en. "The Third Military Revolution." In *Chinese Views of Future Warfare,* edited by Michael Pillsbury. Washington, DC: National Defense University, March 1997.

Huan, Yang. "China's Strategic Nuclear Weapons." In *Chinese Views of Future Warfare,* edited by Michael Pillsbury. Washington, DC: National Defense University, March 1997.

Jialu, Chen. "PRC Officials Back Report's Claim Pentagon Exaggerating China's Military Threat." *Beijing China Daily*, 2 December 2006.

Jijun, LtGen Li, vice president of the Academy of Military Science of the Chinese People's Liberation Army. Address. "Traditional Military Thinking and the Defensive Strategy of China" United States Army War College, Carlisle, PA, 29 August 1997.

Johnston, Alastair. "China's New 'Old Thinking': The Concept of Limited Deterrence." *International Security*, 20, No. 3. (Winter 1995-1996): 5-42.

Kristensen, Hans M., Robert S. Norris, and Matthew G. McKinzie. *Chinese Nuclear Forces and U.S. Nuclear War Planning*. Washington, DC: Federation of American Scientists & Natural Resources Defense Council, November 2006.

Kuiguan, Shen. "Dialectics of Defeating the Superior with the Inferior." In *Chinese Views of Future Warfare,* edited by Michael Pillsbury. Washington, DC: National Defense University, March 1997.

Lewis, John W., and Xue Litai. *Imagined Enemies: China Prepares for Uncertain War.* Stanford, CA: Stanford University Press, 2006.

McVadon, Eric A. "Chinese Reactions to the New U.S. Initiatives on Missile Defense." In *China's Growing Military Power: Perspectives on Security, Ballistic Missiles, and Conventional Capabilities*, edited by Andrew Scobell and Larry M. Wortzel. Carlisle, PA: Strategic Studies Institute, 2002.

Nair, Vijai K. "China's Nuclear Strategy and its Implications for Asian Security." *China Brief* 4, No. 3 (February 04, 2004).

Navrozov , Lev. "Chinese Geostrategy: 'Assassin's Mace.' " *Newsmax*, 21 October 2005.

Peng Guangqian and Yao Youzhi, eds. *The Science of Military Strategy.* Beijing: People's Republic of China: Military Science Publishing House, 2005.

Pillsbury, Michael. "China's Military Strategy toward the U.S.: A View from Open Sources." 2 November 2001.

Qiao, Liang and Wang Xiangsui. *Unrestricted Warfare.* Beijing: Liberation Army Literature and Art Publishing House, February 1999. Translated by FBIS, January 2000. (For official use only.)

Richelson, Jeffrey A. *Spying on the Bomb*. New York: W.W. Norton & Company, Inc., 2006.

Stokes, Mark A. "Chinese Ballistic Missile Forces in the Age of Global Missile Defense: Challenges and Responses." In *China's Growing Military Power: Perspectives on Security, Ballistic Missiles, and Conventional Capabilities*, edited by Andrew Scobell and Larry M. Wortzel. Carlisle, PA: Strategic Studies Institute, 2002.

U.S. Department of Defense. *Annual Report to Congress of Military Power of the People's Republic of China 2006.* Washington, DC : Office of the Secretary of Defense, 2006.

U.S. Department of Defense. *Annual Report of the Secretary of Defense to the President and Congress, 2002*.

U.S. Department of Defense. *Forward to the Nuclear Posture Review Report.*

U.S. Department of Defense. *Quadrennial Defense Review*. Washington, DC: Office of the Secretary of Defense, 30 September 2001.

U.S. Department of Defense. *Quadrennial Defense Review*. Washington, DC: Office of the Secretary of Defense, 6 February 2006.

U.S. Department of Defense. *Quadrennial Defense Report*. Washington, DC: Office of the Secretary of Defense, 30 September 2001.

U.S. Department of State. "Treaty on the Non-Proliferation of Nuclear Weapons," 5 March 1970. *United States Treaties and Other International Agreements*, (January 1, 2006), 21 UST 483; TIAS 6839; 729 UNTS 161.

Walt, Stephen M. "Taming of American Power." *Foreign Affairs,* 84, No. 5. (September-October 2005): 105-120.

Wortzel, Larry M., "U.S.-Chinese Military Relations in the 21st Century," In *The Chinese Armed Forces in the 21st Century,* edited by Larry M. Wortzel. Carlisle, PA: Strategic Studies Institute, December 1999.

Wu, Sun Tzu. *The Art of War*. Lionel Giles, trans. Harrisburg, PA: Military Service Publishing Company, 1944.

Zengyi, Ding, and Zhang Shun. "PRC Official on Significance, Characteristics of China's Defense White Paper." *Beijing Jiefangjun Bao*, December 30, 2006.

Zhao, Xijun, ed. *Intimidation Warfare: A Comprehensive Discussion on Missile Deterrence.* Beijing: National Defense University Press, May 2005.

Zhao, Xijun. "'Victory Without War' and Modern Deterrence Strategy." *Beijing*

Zhongguo Junshi Kexue in Chinese, 31 October 2001, 55-60.