

Military Strategy: Basic Concepts and Examples of its Use



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Basic Concepts and Examples of its Use

Cover China's strategic thought is strongly influenced by three authors: Sun Tzu, Karl Marx, and Mao Zedong, according to Chinese sources. The methodology and philosophy of these men impact how Chinese strategists consider their battlefield context and accordingly develop their plans and procedures for the conduct of military operations.

The views expressed in this document are those of the author and do not reflect the official policy or position of the Department of Defense or the US government.

The author works for the Foreign Military Studies Office (FMSO), Fort Leavenworth, Kansas. FMSO is a component of the US Army's Training and Doctrine Command (TRADOC). The FMSO does strategic, guidance-driven, unclassified research and analysis of the foreign perspective unconsidered/understudied security issues of the military operational environment. FMSO is the Army's principal unclassified researcher, leader educator, and operational-support resource regarding the foreign perspective of the Operational Environment, and the Army's leading advanced open source education developer, provider, and collaboration organization.



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FORWARD

In order to decipher the strategic direction in which the People's Liberation Army (PLA) is headed, one must tap into the concepts that comprise China's military strategy. This is a difficult task, since the PLA does not produce a seminal open source document similar to the U.S.'s National Military Strategy. *China's Military Strategy: Basic Concepts and Examples of its Use* offers an analysis of Chinese strategy's basic components. The book first examines Chinese definitions of strategy and the influence of Karl Marx, Sun Tzu, and Mao Zedong on the concept. The book then looks at how contemporary PLA officers (and a few Taiwanese officers) view strategy; and examines two case studies that utilize China's strategic thought process, those studies focusing on cyber and geopolitical issues.

Next, the book compares the basic ingredients (the planning concepts of comprehensive national power, *shi*, etc.) of PLA strategy versus their US counterparts; and takes a ten-year look at the Pentagon's yearly reports on PLA power, contrasting them against the Chinese military's *White Papers* during that same time period.

Finally, the book takes a look at three issues. They are China's focus on scientific and technological issues affecting the PLA's future strategy, the development of combat power generation models, and President Xi Jinping's "China Dream" concept for the military. Three appendixes include U.S translations of a concept known as *shi*; China's "military strategic guidelines;" and new concept weapons.

It is vital that analysts understand China's military strategic template. It helps them comprehend the planned direction and purpose of China's movements across the globe. The factors examined in this book provide analysts with a penetrating look into several unconsidered and "under-advertised" aspects of Chinese security thinking.

Thomas Wilhelm Director, Foreign Military Studies Office 2014

DEDICATION

This book is dedicated to my wife, my children and their spouses, and my grandchildren—thanks to all of you for your encouragement and support.

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The author used only open-source translations for the development of this document. Since the author does not speak Chinese, he fully utilized the translation talents of government contracted Chinese translators that the Foreign Military Studies Office (FMSO) hired in order to write this book. The author is solely responsible for the selection and analysis of the material others translated.

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INTRODUCTION

Is it important to study another country's strategy? Chinese retired Lieutenant General Li Jijun provided a cogent answer in 2006 from the vantage point of the People's Liberation Army (PLA): "Therefore, in war direction, understanding the adversary's ideological culture and strategic thinking method is as important as finding out the adversary's military deployment."

This book capitalizes on Li's concept, seeking to address the concept of China's military strategy in order to help US analysts better understand PLA motives and intent. While the People's Republic of China (PRC) is not an enemy, it has developed into a powerful competitor worthy of closer examination. If we (the US) are to follow the advice of PLA analysts, and do what they are doing, then we should be using peacetime to contemplate where the PLA is heading and how their strategic thought is developed and implemented. Keeping a finger on the pulse of the PLA's thought process as it proceeds with confidence (and some degree of arrogance) into the second decade of the 21st century allows the US to assess the probable direction (or uncover purposeful misdirection) inherent in PLA strategy. Accordingly, any required adjustments to US national security policy or US military strategy can be formulated.

What follows is this author's analysis of how Chinese strategy is created and implemented. The analysis merely suggests *a* way of considering or thinking about PLA strategy and not necessarily *the* way. There may be US specialists on China's military who disagree profoundly with this author's findings. However, the discussion and conclusions are almost solely based on the use of translated Chinese documents and, as such, attempt to offer a purely Chinese perspective on the content, goals, and implementation of strategy.

China's military strategic template appears to be a combination

¹ Li Jijun, "Military Strategic Thinking and Scientific Decision-making," *China Military Science*, No. 1 2006, pp. 28-38.

of many factors. First, there are cultural and historical aspects that impact strategy, such as the work of Sun Tzu. Second, there is the direction provided from actual military experiences, especially those of Mao Zedong. Third, there is the overriding influence of the Communist Party of China (CPC) as the final arbiter on how to think, that is through the prism of Marxism. Finally, there are current advances in science and technology that impact the strategic environment and create new strategic issues. These high-tech developments alter China's assessment of objective reality (their situational context or strategic environment analysis) and the subjective responses (use of stratagems and other thinking processes) of the nation's leaders and commanders. Also under consideration is how these new developments can be integrated into planning and how they thus affect strategic guidance.

The book's analysis begins with a look at the three individuals who have most influenced the PLA's historical strategic development: Sun Tzu, Karl Marx, and Mao Zedong. It was Sun Tzu, after all, who stated that "know the enemy and know oneself, and you will not lose in a hundred battles," which appears to go hand in glove with Li's statement above. The theories and concepts of these three men are applicable to strategic thought in the contemporary period as well. Specific aspects of their work continue to be cited as key elements upon which PLA strategy rests. For example, new President Xi Jinping, in the opinion of some Chinese domestic reporters, is resurrecting Mao's thoughts.

Perhaps Marx is a surprise to some as a key contributor to Chinese strategy due to his foreign roots. His role as the father of communism, however, has cemented his place and thought process into the leadership of the CPC and PLA commanders. His theories are invaluable as conceptual templates. For example, an oft repeated phrase in Chinese strategic thought, that subjective guidance must conform to objective realities, has Marxist roots and is a key way to comprehend strategy from a Chinese perspective. Subjective initiative or guidance is the creative thought of commanders, usually expressed as a stratagem, to take advantage of objective reality (or situational context) and the conditions before PLA commanders. The proper analysis of these conditions and the exercise of subjective creativity ensure that troops will fight under optimal strategic conditions and chances for success.

In addition, there are several key PLA theorists, both active and retired, who have processed the thoughts of these three men and brought them forward with a 21st century flavor. These men have added innovation, scientific and technological developments, and other issues to the strategic template. For example, some believe that high-tech developments create more chances for stratagem applications and open up more thinking space for the use of strategy. These men include such well known military specialists as Major General Yao Youzhi, Lieutenant General Li Jijun, Major General Li Bingyan, and Colonel Xue Guo'an, among many others. Taiwanese officers have also written on their understanding of Chinese military strategy.

Two case studies in the book examine how the cultural, historical, and elemental aspects of strategy might work together when applied to geocyber and geopolitical issues. China's cyber reconnaissance of US systems is analyzed for its potential to establish the ability to "win victory before the first battle." Strategies for obtaining energy resources from Africa and controlling rare earth metals that are mined inside China are examined from the geopolitical perspective.

Next, the book delves deeper into the elements that compose the PLA's strategic planning process and how they differ from the US approach. A potential sub-element of the military aspect of CNP, namely "combat power generation models," is examined along with the Pentagon's reports to congress on Chinese military power, comparing them against Chinese *White Papers* on PLA power. The congressional reports and white papers are assessed and examined for changes to strategic thought over a ten-year period.

Finally, the affects of new scientific and technological developments on strategy are considered, to include psychological weapons, new concept weapons, and cyber weapons. These developments have been ongoing for a number of years, but are being examined more closely now that China has begun creating and buying (or stealing) the data and techniques that underlie these developments and producing its own high-tech equipment. Chinese President Xi Jinping's strategic concept of a "China Dream" is then assessed for its impact on military developments. A key component of that assessment is

a look at the book China Dream, which was authored by a military officer.

Some of the strategic concepts exposed in the book include the following:

- The essence of strategy is to make an opponent do something for themselves that they are actually doing for you.
- Strategy is often an integrated reflection of the thoughts of Sun Tzu, Karl Marx, and Mao Zedong, and of the use of stratagems, which are used to mislead enemy processes of perception, thinking, emotion, and will.
- Strategy is applied using an "objective reality and subjective guidance" thought process. Objective reality can be visualized as China's strategic environment, usually evaluated via a comprehensive national power (CNP) thought process, while subjective guidance is understood as a commander's use of creative thought via stratagems or some other method to utilize, influence, or manipulate objective reality and achieve a specific goal.
- The goal of stratagem manipulation is to put the stratagem developer in sync with the enemy's "intelligence-judgment-decision" process and induce the enemy to make decisions as one would expect him to do.
- Strategic concepts are incorporating objective reality's new scientific and technological developments and thereby seek innovative and creative methodologies for 21st century Chinese strategic thought. This thinking has taken on an offensive character in the information age due to the necessity to maintain the initiative.
- Strategy is often countermeasure oriented. It applies the objective reality (discover enemy measures and technical parameters)-subjective initiative (stratagem

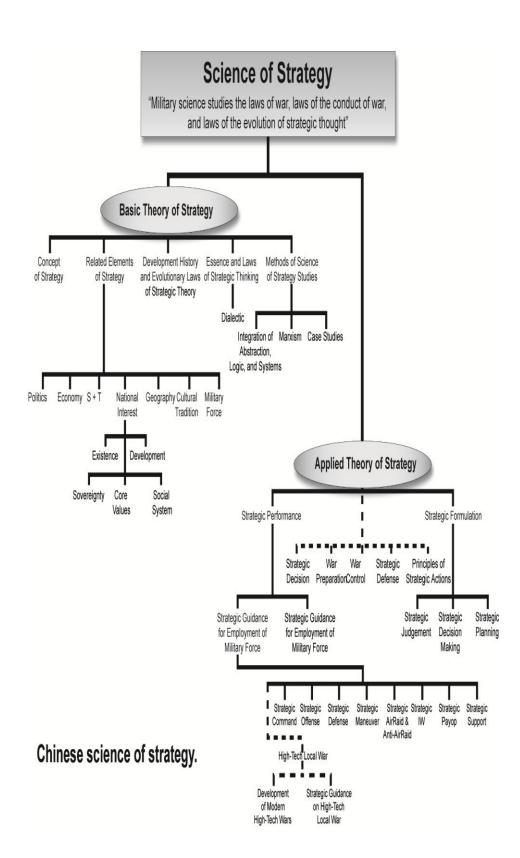
- and counter technical developments to eliminate these measures) methodology to offset the advantages an opponent seeks.
- Strategy seeks to find a way to impose or achieve a strategic advantage (*shi*) for friendly forces, enabling a force to establish a superior posture in configuration or even digits to guarantee a win before the first battle. In the cyber age this is most likely being accomplished through the cyber reconnaissance of foreign systems.
- Strategy is reflected in the planning and guidance to protect or develop national and core interests.

Conclusions and appendixes finish up the book. The diagram of the "science of strategy" that follows these introductory remarks is an outline of the various sections of the Chinese translated book *The Science of Military Strategy*, edited by Chinese generals Peng Guangqian and Yao Youzhi. Their book is often cited in the text. The diagram provides a comprehensive view of the topic of strategy in the PLA. It was previously published and discussed in the book *Decoding the Virtual Dragon* and is posted here again as a reminder of the variety of aspects that compose PLA strategy.

This author has written several books focusing on Chinese information warfare (IW) issues. They include *Dragon Bytes*, which covered Chinese IW activities from 1999-2003; *Decoding the Virtual Dragon*, which covered Chinese IW activities from 2003-2006; *The Dragon's Quantum Leap*, which covered the period from 2006-2008, with some additional material included from earlier years; and *Three Faces of the Cyber Dragon*, which covered cyber issues from 2009-2012. These four works, as well as this current publication to a lesser degree, are devoted to improve our understanding of the PLA's information-based transformation efforts.

The aim of these books is to provide a progressive look at Chinese cyber/strategic issues and to provide analysts with a way of thinking about the PLA's planning and guidance process. Hopefully, the books will enable analysts and interested readers to draw a more realistic picture of both the PLA's strategic designs and cyber challenges. Finally,

there is the hope that understanding the Chinese perspective will offer negotiators potential future areas of collaboration.



PART ONE: WHAT IS STRATEGY?



CHAPTER ONE: CHINA'S MILITARY STRATEGY: WHERE KARL TRUMPS CARL

Introduction

It seems that whenever the term strategy arises in the West, the name Carl von Clausewitz follows closely behind in some form. For many analysts he is the mastermind behind the understanding of warfare through strategic eyes. However, this is not the case in China. Here Carl's name starts with a K, and the masterful strategic thought process belongs to Karl Marx. The author of one important Chinese document even indicated that his strategic thought process is beginning to push ancient thought (Sun Tzu?) aside.

This focus of the People's Liberation Army (PLA) on Marx's thought process as a key to understanding strategy is seldom recognized. Analysis of China still focuses heavily on Sun Tzu, Mao, or even Clausewitz when unraveling Chinese strategy (Mao may be making a comeback under Xi Jinping, however!). Neither is Marx listed among the great strategists of the world in important works such as the US Army War College's *Volume 1: On the Theory of War and Strategy* or Michael Handel's *Masters of War*.

However, there is ample evidence in Chinese military texts to support the thesis that Marx is one of, if not the, chief strategists of the PLA, if the components of thought processes are considered. His thinking can be found in journals and newspapers, as well as in books. Several sources demonstrate this thesis. For example, two expert PLA books, the 2001 *The Science of Military Strategy* and the 2007 *The Theory of Military Strategy*, clearly state that Marx's thought process is representative as one of the keys to PLA strategy.

Do Westerners really understand Marx's influence on Chinese thought? In reply to that question, a four problem quiz (questions taken from the PLA book *The Science of Military Strategy*) is offered as an initial entry point to the topic. Readers are asked to choose from among Sun Tzu, Karl Marx, Mao Zedong, and Deng Xiaoping to answer the following:

- Whose philosophy and military thought serves as the advanced culture of military thought in China?²
- Whose philosophy serves as the PLAs guiding principle?³
- Who developed People's War?⁴
- Who said that the biggest mistake is to miss an opportunity to send superior military forces against the enemy?⁵

The answer to all of these questions is Prussian-born philosopher Karl Marx. If you correctly selected Marx in all cases, consider yourself among the very few able to do so. Marx represents a very important element of contemporary PLA strategy yet for many analysts his input and influence is often forgotten.

China's Marxist approach to strategy appears to contain two parts. The first is an analysis of objective reality (the strategic environment), an analysis that utilizes China's comprehensive national power (CNP) assessments of itself and other nations. These assessments take into consideration numerous issues that are reflective of objective reality, such as geography, the level of science and technology in a country, and so on. The second part of Marx's strategic approach is the use of subjective initiative, which is most often thought of as the use of cognitive devices (stratagems, etc.). The goal of subjective initiative is to further develop or manipulate issues to create strategic advantages (or *shi*). Hopefully the following examination, based on these two aspects, will better inform analysts as to a methodology the PLA appears to be using to formulate military strategy.

² Fang Yonggang, "Defining Advanced Chinese Military Culture," *China Military Science*, No. 6 2005, pp. 73-83.

³ Peng Guangqian and Yao Youzhi, editors, *The Science of Military Strategy*, Military Science Publishing House, Academy of Military Science of the Chinese People's Liberation Army, English version, 2005, p. 150. The Chinese language version was published in 2001.

⁴ Ibid., pp. 121, 126.

⁵ Ibid., p. 288. Some material in this chapter was taken from Appendix II of the author's prior 2012 work *Three Faces of the Cyber Dragon*.

This chapter first discusses the objective-subjective thought process. It then discusses the several definitions of strategy that have evolved over the past few decades, based on the writings of PLA military academies and military journals. The chapter ends with a short description of how the Chinese view Clausewitz from the perspective of Marx and Engels.

The Objective-Subjective Thought Process

In 2007 Fan Zhen Jiang and Ma Bao An, in their book *The Theory of Military Strategy*, described strategy in the following manner:

Military strategy consists of planning and guidance for the situation of military struggles as a whole; it means taking an objective approach with subjective matters.⁶

To Fan and Ma the objective-subjective thought process suggests what the analytical judgment should consider and how to go about achieving the goal of attaining a strategic advantage. These processes appear imbedded in Chinese planning implicitly much as empirical thinking is imbedded in the thought processes of some Western countries. China's renewed interest in military strategy occurred after the 1980s according to Fan and Ma. The authors note that objective possibilities and subjective efforts are interconnected and blended together, giving military strategy a high degree of flexibility and diversity.⁷

Just what is meant by the objective-subjective thought process? The Chinese *Xinhua Cidian (Xinhua Dictionary)* states the following:

Subjective refers to a person's thinking or understanding. Objective refers to the material world existing outside of a person's consciousness. The relationship between subjective and objective is a dialectical unity. Objective does not rely on subjective and exists independently, it is

⁶ Fan Zhen Jiang and Ma Bao An, *The Theory of Military Strategy*, National Defense University Press, 2007, p. 59.

⁷ Ibid., p. 27.

the source of subjective, it determines subjective; subjective reflects objective, and actively reacts with objective, under certain conditions it determines the effect of objective. The objective world is constantly developing and changing, and a person's understanding must also accordingly develop and change.⁸

Objective thought refers to the reality one faces, the concrete factors that are to be considered. These include issues such as the level of science and technology in a nation, the nation's portion of the budget spent on defense, the location of its troops, and so on. Subjective thought refers to a policy makers' or commanders' ability to utilize, influence, or manipulate these objective factors for their benefit. This is often expressed as a stratagem.

In 1999 General Fu Quanyou, a member of the PLA's all-powerful Central Military Commission, wrote that "materialist dialectics tells us that subjective guidance must conform to objective reality" and that "matching subjective guidance with objective reality is the most fundamental" law to follow. Thus Marxist thought was clearly being utilized in the late 1990s in the PLA. Objective reality and subjective initiative enabled the observation and analysis of the strategic environment. These two elements became the stage setters for unraveling the contours of military strategy. It is a bit different than the US reliance on ends, ways, and means, which apparently had its roots in Clausewitz's work *On War*.

The issue of objective-subjective thinking dots the 2001 work of Peng Guangqian and Yao Youzhi, editors of the book *The Science of Military Strategy*. The topic first appears in the section on the laws of strategic thinking. In this section of the book, the authors list several models of strategy. The very first model states that "strategic thinking can be divided into an objective strategic thinking model and a

⁸ Xinhua Cidian (Xinhua Dictionary), 1985, p. 1106.

⁹ Fu Quanyou, "Deepen the Study of the Characteristics and Laws of High-Technology Local War and Raise the Standard of Guidance for Winning High-Technology Local Wars of the Future," *China Military Science*, No. 1 1999, pp. 6-14.

subjective strategic thinking model according to the character of thinking." Two other models state that "strategic thinking can be divided into a stratagem type strategic thinking model and a force type strategic thinking model according to different applications of strength by strategic subjects;" and that "strategic thinking can be divided into conservative strategic thinking and creative strategic thinking according to the attitude of the thinking toward experience and tradition." Thus, the objective-subjective thought process influences several of Peng and Yao's models of strategy.

When discussing war strength, war potential, and the means to win war and secure military objectives, Peng and Yao reference a famous historical statement on the objective-subjective thought process. Mao, they note, stated that war is a contest in subjective ability between the commanders of the opposing armies in their struggle for superiority and for the initiative on the basis of material (objective) conditions such as military forces and financial resources. When making strategic decisions, Peng and Yao write that "All correct strategic decisions are products of the conformation of subjective knowledge to objective reality. Strategic decision, as a thinking and cognitive activity, is not made without foundation...but is the reflection of the laws of the movement of war and the embodiment of laws of strategic thinking." Decision-making consists of judgments about the strategic situation, a decision on the strategy to accept (a decision on strategic guidance), and a formulation of strategic plans from this.

The strategic material or objective base of China's military strategy is "comprehensive national power." Objective reality is based on actual military strength and power, while subjectivity implies the ability to utilize, influence, or manipulate reality (via stratagems, wisdom, or resourcefulness) to gain superiority of some type (psychological, situational, actual, etc.) and thus the initiative.

¹⁰ Peng and Yao, p. 134.

¹¹ Ibid., p. 135.

¹² Ibid., p. 137.

¹³ Ibid., p. 57.

¹⁴ Ibid., p. 174.

¹⁵ Ibid.

Peng and Yao also provided an overall view of strategy from Marxism's objective reality-subjective initiative viewpoint:

The objective physical conditions of war determine the laws of war as well as the guiding laws of war. Although strategy manifests itself in a war conductor's activities of subjective guidance, it is by no means the war conductors' personal extemporaneous elaboration. Instead it is based on given objective physical conditions and restricted by a certain social mode of production and certain social conditions of history. Therefore, it is an important task for studies of the science of strategy to correctly analyze the objective elements having a bearing on war strategy and reveal their inherent connections with war strategy. ¹⁶

In 2002, writing in the Academy of Military Science journal *China Military Science*, Professor Wu Chunqiu discussed strategy, dialectics, and objective-subjective thought in a more expanded form. He stated that grand strategy is "interpreted in China as a system of knowledge, a special mode of thinking for top decision-makers and their brain trusts and advisory bodies" and is tantamount to the technique of "national strategic management." The means to do so should include all elements of "comprehensive national strength," where the national objective is a combination "of both national security and national development." Wu points out that "this is in line with the *de facto* overall strategy pursued by China," adding that a unique contribution to better understand grand strategy in China is the use of dialectics. He notes that strategy is made up of a pair of basic contradictions, those being objective reality and subjective initiative. Wu defines objective reality as "the objective world which exists independently of man's will and has its own law of development." Subjective initiative is defined as "man's

¹⁶ Ibid., p. 39.

¹⁷ Wu Chunqiu, "Dialectics and the Study of Grand Strategy: A Chinese View," *China Military Science*, No. 3 2002, pp. 144-145.

¹⁸ Ibid., p. 145.

ability to comprehend the objective world and consciously transform it to achieve certain purpose." ¹⁹ He states:

What is the objective reality when a researcher or a director of grand strategy considers his strategy? It is the state of the nation, the world situation, the globe as a whole, and even the cosmic space. Or, in other words, it is the context within which the grand strategy decision-makers operate. We call it the strategic environment...the outcome of a war depends not only on the balance of the objective material strength of the belligerents, but also the subjective ability to employ it. Why could one side defeat the other in the history of wars even though both were roughly matched in strength? Why could a small nation defeat a big one and an inferior force defeat a superior one? It relates to the art of subjective guidance. ²⁰

Subjective guidance can thus be interpreted as the ability to influence or manipulate objective reality to one's benefit.

Wu listed several principles of grand strategy. They were as the goals overall situation, that serve comprehensive national strength (CNS), strategic focal points, victory without war, the unity of goals and means, and the principle of relative stability. The principle of the overall situation is to bring subjective initiative into play and integrate numerous components, including time (thinking in a vertical way of the past, present, and future), space (thinking in a horizontal and multidimensional way about issues, areas, departments, aspect, fronts), and systems (the structure-function issue that links the country with the whole world).²¹ The principle of goals serving politics simply refers to the general line of the Communist Party of China.²² The principle of CNS involves analyzing each country's favorable and unfavorable conditions, strong and weak factors of

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¹⁹ Ibid, p. 146.

²⁰ Ibid.

²¹ Ibid., p. 148.

²² Ibid., p. 149.

national strength. The economy is the foundation and science and technology the precursors, with education the precursor's precursor! Defense is the backing and politics unifies and coordinates. The principle of strategic focal points refers to determining key points, vital parts, directions, and issues that have a decisive impact on the overall situation or where basic interests lie. They determine strategic deployments, to include the deployment of resources (human, material, financial, etc.). The principle of victory without war supports Sun Tzu's proposition of winning without fighting. This is achieved through political or diplomatic or military pressure or their integration. Victory without war can mean victory through the achievement of CNS over other countries. Preparing for war helps create the conditions for winning without war. The proposition of winning without war.

The principle of goals and means requires unity. Means include CNS and policies, ways, methods, and approaches to employ CNS. Goals cannot go beyond CNS and they must be coordinated in order to enhance the overall might of CNS. In this case, policies involve a commander's initiative and are able to counteract CNS weaknesses. Finally, the principle of relative stability implies that grand strategies are designed to be long term. However, changes, especially qualitative ones, during any period must be considered, thus the term "relative." "A grand strategic plan, as a reflection of subjective initiative, must suit the relative stability of the objective reality." A change of goals means "a change of the whole strategy." Focal points and policies can cause significant changes as well. Changes in tactics do not change the overall strategy. Grand strategy must be carefully thought out. For this reason, a commander of grand strategy "must have a strong sense of information feedback as well as a strong sense of strategic opportunity. The former is the only way to verify if the objective reality has changed and what kind

²³ Ibid., p. 150.

²⁴ Ibid., pp. 150-151.

²⁵ Ibid., pp. 151-152.

²⁶ Ibid., pp. 152-153.

²⁷ Ibid., p. 154.

²⁸ Ibid.

of change has taken place. The latter is a special skill a director of grand strategy must have, which originates from his unusual foresight."²⁹

In 2004 Wang Pufeng, a PLA professor, wrote on the topic of strategic thinking.³⁰ He stated that thinking and ideas are not the same thing. Thinking "refers to the process of using a certain method to carry out a reasonable understanding. Ideas are the results of the thinking process." Thinking places more stress on adhering to principles and methods and not on results. As the objective world constantly changes, so also does the strategic situation. Innovative approaches are required to handle unexpected changes. Innovative thinking, according to Wang, is

The flashpoint of strategic thinking; it is the ladder for successful strategists; it is the concrete embodiment of the knowledge and talent of strategists; it is the light of the art of strategic thinking. It may be said that there are no strategists who have no innovative thinking.³²

Wang then asks "Does the obliquity in strategic developments have innovative strategic thinking as its subjective driving force?" It appears the answer to that question is "yes." In general, when subjective thought is innovative or creative, it is particularly good. The main body of strategic thinking is composed of expert knowledge of the situation, knowledge gained from experience and study, and outstanding ability (wisdom and knowledge) and sagacity (strategic planning and

²⁹ Ibid.

³⁰ Wang Pufeng, "On Strategic Thinking," *China Military Science*, No. 3, 2004, pp. 86-91. When referring to strategy's nature, Wang listed a host of adjectives: scientific, comprehensive, macroscopic, social, multi-dimensional, confrontational, astute and resourceful, decision-making, stable, definite, flexible, predictive, forward looking, technical, innovative, and so on. He defined strategic thinking as "the overlapping discipline of military science and the science of thinking; it is the fusion of strategics and the science of thinking." Strategy is macroscopic, calculated, key-point oriented, innovative, and dialectical (with the latter element undergoing changes as war develops). It is a contest between the guiding thoughts of adversarial and friendly elements.

³¹ Ibid.

³² Ibid.

management). The latter two are the essential elements of strategic thinking in Wang's view.³³

In 2006 another source, 100 Questions and Answers on Faithfully Implementing Our Army's Historic Missions in the New State of the New Century, provided a few more examples of the thought paradigm. In the section "What is a Strategic Opportunity Period?" the following answer was provided:

Opportunity is normally referred to as a chance for development presented to an individual or an organization by objective realities and the subjective conditions. There are two main criteria in judging whether a country is in a strategic opportunity period: first, it will depend on whether the country in question is in subjective pursuit of goals at a strategic level; and second, it will depend on whether the objective conditions are favorable for the materialization of the strategic goals.³⁴

The book's authors note that if any of the subjective or objective factors are not in place, then there is little reason to discuss the idea of a strategic opportunity. Strategic opportunity depends on the unity of subjective desire and the objective environment. Such opportunities are a "result of the integration of subjective strategic goals and objective strategic opportunities, which is attained through subjective effort." Further, one can ruin the other. Favorable objective circumstances can be ruined by subjective mistakes.

In another section of the book not related to opportunities, it is stated that new ideas of warfare have caused many nations to relook their security environment, strategies, and tactics. This also requires them "to make active adjustments according to the objective environment and the subjective need."³⁶

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³³ Ibid.

³⁴ Wu Jieming, editor, 100 Questions and Answers on Faithfully Implementing Our Army's Historic Missions in the New Stage of the New Century, 2006.

³⁵ Ibid.

³⁶ Ibid.

In 2007 Zhang Shiping, writing in the journal *China Military Science* about the nature and characteristics of strategy, noted that major issues in politics, the economy, culture, and society are called policy, while major issues in military fields are called strategy. He listed factors that could be considered as objective to include "armed forces building, defense works, manufacturing and storing military equipment and military goods, war mobilizations, determining basic operational orientation, differentiating theaters of operations, and formulating combat policies and principles of combat guidance."³⁷

Zhang listed what he considered as the "objective formal characteristics" of strategy:

- Strategy is a historical category
- Strategy has a hierarchical nature. Major categories are international, grand, national, national security, and national military strategy. Minor ones are combat, military service, theater of operations strategy, and so on. National strategy includes war preparations and war implementation, categories that national security organizations consider.
- Strategy's substance changes during different periods of time and at different levels. Today, national strategy and military strategy are the central considerations.³⁸

Also in 2007 the book, *The Theory of Military Strategy*, described the military strategy concept and its components. Included in the explanation were characteristics, missions, the objective environment, planning, management, war direction and control, guiding

38 Ibid.

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³⁷ Zhang Shiping, "Connotations, Nature, and Characteristics of Strategy," *China Military Science*, No. 6 2007, pp. 53-59.

ideology, and war mobilization.³⁹ The book provides several hints as to how to conduct strategic analysis as well.

The book's authors, Fan Zheng Jiang and Ma Bao An, write that objective realities are enhanced through relevance, flexibility, and suitability. 40 Chapter Three, "The Objective Environment of Military Strategy," is perhaps the book's most important section due to its direct explanation of strategy's components or elements. The authors stated that military strategy is defined as consisting of planning and guidance for the situation of military struggles as a whole, which means taking an objective approach with subjective matters. Here objectivity is referring to the strategic environment, which is "the important foundation upon which military strategy is dependent for its formulation, the extrinsic upon which military strategy is dependent for its conditions implementation, and the arena upon which the strategic directors are dependent for displaying their talent in planning and skill in directing."41 The latter element, displaying their talent and skill in directing, is based on their subjective initiative.

The strategic environment refers to the objective situations that confront national security. These situations mainly include the international and domestic areas of politics, economics, military affairs, science and technology, and geography, key elements of CNP. The strategic environment and the CNP of nations are dynamic and constantly changing.

Fan and Ma state categorically that "The relationship between the strategic environment and military strategy is a relationship between objective reality and subjective guidance. Properly understanding and analyzing the strategic environment is the prerequisite for properly formulating and implementing military strategy." Thus, properly assessing the strategic environment or objective reality will expose the advantages and disadvantages that sides possess and offer ways that

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³⁹ Fan Zheng Jiang and Ma Bao An, *The Theory of Military Strategy*, Beijing National Defense University Press, 2007, table of contents.

⁴⁰ Ibid., pp. 8-13.

⁴¹ Ibid., p. 59.

⁴² Ibid.

subjective initiatives can be used to implement strategy or even arrange strategic advantage or *shi*. Characteristics of the times, the world's strategic structure, strategic trends of principal countries, and so on must be emphasized and provided attention, although a country's geographic environment, political environment, and CNP provide the most immediate influence on military strategy.⁴³

In another example of the use of the objective-subjective thought process, in 2010 Senior Colonel Luo Xiangde from the Nanjing Army Command Academy wrote that the strategic system of systems thinking for China is "a strategic thinking activity in which subjective ideas are manifested through objective realities."

Finally, in 2012 the military journal *Guofang* (*National Defense*) discussed strategic thinking. An unnamed author noted that a transformation in strategic thought is required in order to break away from traditional thought. China must change as their national security issues and national interests, as well as the world around them, changes. For example, satellites invite the exploration of space strategy. The article notes that

More and more new emerging situations and new circumstances arise to challenge the traditional 'restrained type' of military strategic thinking. We must transform military strategic thinking immediately...to instruct on situations of constantly changing military struggle as far as possible to make the subjective guidance match objective reality and to not make or decrease errors on strategic instructions and strategic decisions.⁴⁵

Thus, the concept is used quite often in military affairs when discussing strategy from a variety of perspectives and authors.

⁴³ Ibid., pp. 61, 64.

⁴⁴ Luo Xiangde, "Considerations on Guidance for Information-System-Based System of Systems Operations," *China Military Science*, No. 4 2010, pp. 51-58.

^{45 &}quot;The Transformation of Chinese Strategic Thinking," *Guofang*, March 2012, pp. 13-14.

The Evolving Nature of Strategy's Definition

The game of strategy begins with a nation's historical understanding of the key thoughts and elements upon which strategic conceptualization is formulated. Then, nations decide which national interests have become requirements for the nation's survival. This process for the PLA includes the comprehensive study of objective reality, which to a PLA analyst includes the threats, geographical conditions (resources, passages, borders, etc.), needs and excesses, levels of spending on defense and research in a nation, and so on. These concrete things or material stuff of the contemporary environment compose reality. From objective reality, national and core interests are determined, as well as the major and general interests of the nation.

It follows that the ways to "get what you want" are manifested through planning and strategic guidance. The subjective thought process provides this input. It involves finding ways to utilize, influence, or manipulate objective reality to one's benefit. The subjective thought process can utilize stratagems in the quest to attain strategic advantage or *shi*. A strategic advantage, if attained in peacetime, can be a way of arranging forces or even digits to "win victory before the first battle" through thorough reconnaissance and shaping of the environment. This advantage could be exploited now or in the future. Risks may be taken at crucial points if the elements indicate probable success or if the use of the uncertainty principle appears favorable (for example, when uncertainty is used as a component of deterrence theory). The application of these thought processes results in ways to attain the achievement of strategic objectives.

The ideal goal of this strategic process, according to several PLA strategists, is to use such elements to make "someone do something for himself that he is actually (unknowingly) doing for you." This, they assert, is the essence of strategy. Chapter Six of the *Art of War* even provides an example of this type of thought, noting the following: "how can one make the enemy arrive of their own accord—offer them advantage." The enemy is thus doing something supposedly for themselves that they are actually doing for friendly (in this case Chinese) forces. Very seldom is this passage referred to as the essence of strategy by Western analysts.

Several important steps in the development of the PLA's strategic thought process occurred, naturally, only after the founding of the Communist Party of China in 1949. The most notable period of change came during the 1980s, when the carnage in China caused by Mao's Cultural Revolution was assessed and Russia's communist ideology unraveled. These events facilitated a change in emphasis in strategic thought, most notably a renewed interest in the objective and subjective factors of Marxist thought. Chinese authorities believed these elements ensured that national security and national development issues would be properly considered and creatively applied, and that their proper use would result in the creation of strategic advantages. Strategic decisions, according to one source, first require the identification of strategic objectives through the use of the subjective and objective evaluation process.

Chronologically the definition of strategy has undergone some change over the past fifteen or so years. The 1991 *PLA Officer's Handbook* offers a definition of strategy from a purely military viewpoint. The handbook defines two related concepts: the science of military strategy and military strategy. The science of military strategy is

Both related to and also different than the science of strategy, the science of campaigns, and the science of tactics. What is studied in the science of strategy, the science of campaigns, and the science of tactics is matters pertaining to all of or part of war. The science of military strategy, however, studies matters concerning the creation and application of strategy that spans these three disciplines. What is studied in the science of strategy, the science of campaigns, and the science of tactics is the general principles that guide war; the science of military strategy, however, studies how to adeptly apply the general principles in war. If we say that what the former study is the 'right way,' then what the latter explores is the 'deceptive way;' what the former study is 'regular

procedures,' and what the latter explores is 'altered procedures.' 46

Military strategy is defined in the following way:

Strategy—a general reference for stratagems and military strategy. The operational plans used by both sides engaging in combat during preparations for war and through the course of war on different levels (strategic, campaign, and tactical) to gain victory. Military strategy is the result of the development of war; it is the concrete manifestation of the effect of the subjective activities of people on material strength. It reflects the general laws of military struggle, and it has a relative stability and exuberant vitality.⁴⁷

Strategy can thus be visualized as the manipulation of objective reality through the use of subjective initiative to enable a strategic advantage.

In 1997 the Chinese Military Encyclopedia defined strategy as

The general plans for planning and directing war situations as a whole. That is, based on analysis and assessment of the international situation and the various political, military, economic, scientific, technological, and geographical factors of the two hostile parties, scientifically calculating the occurrence of war and its development, formulating strategic policies, strategic principles, and strategic plans, planning war preparations, and all of the principles and methods followed while directing the implementation of war.⁴⁸

⁴⁶ Chinese People's Liberation Army Officer's Handbook, Qingdao Publishing House, June 1991, p. 197. Dr. Gary Bjorge of the Combat Studies Institute of Fort Leavenworth, Kansas graciously made his *PLA Handbook* available for use.

⁴⁷ Ibid.

⁴⁸ *Chinese Military Encyclopedia*, Military Science Publishing House, 1997, Volume 3, p. 699.

Here the international situation represents objective reality, while the judgmental phase would be the subjective initiative of the analyst. This definition focused on planning and directing a war effort based on an assessment of the situation and concluded by stating that one must calculate war's probability and formulate the principles used to direct war's implementation. Risk assessments appear to be part of the calculation process. In addition, the Chinese military encyclopedia's entry for strategy noted that Mao Zedong, in his "Problems of Strategy in China's Revolutionary War," stated that "strategy is the study of the laws of a war situation as a whole." This definition, the encyclopedia asserts, laid the foundation for contemporary China's definition of strategy. 49

Joint Publication 1-02, Department of Defense Dictionary of Military and Associated Terms, defines strategy as "A prudent idea or set of ideas for employing the instruments of national power in a synchronized and integrated fashion to achieve theater, national, and/or multinational objectives." The US definition is more active than contemplative (ideas having been generated) than the Chinese definition, and it envisions power employment as the stated goal to achieve an objective.

What now follows are summaries of two books, the 2001 *Science of Military Strategy* and the 2007 *The Theory of Military Strategy*. They are both products of the PLA's military academies and are powerful sources for a credible discussion of objective-subjective criteria.

The Science of Military Strategy

Peng Guangqian and Yao Youzhi, two retired PLA generals and the editors of the book *The Science of Military Strategy*, defined military strategy in the following manner:

Strategy in China's new period takes national comprehensive power as its foundation, the thought of active defense as its guidance, and winning local war

⁴⁹ Ibid.

⁵⁰ *Joint Publication 1-02: Department of Defense Dictionary of Military and Associated Terms*, as amended through 30 January 2011, p. 350.

under high-tech conditions as its basic point to construct and exercise military strength; it carries out the overall and whole-course operation and guidance of war preparations and war for the purpose of protecting national sovereignty and security.⁵¹

This definition portrays a holistic or comprehensive view of "China's new period" and stresses two of China's core interests: sovereignty and security. It highlights key strategic concepts as well, those being active defense and winning local wars under high-tech conditions.

The initial five chapters of this book lay out an understanding of strategy from a Chinese perspective. All sources' and nations' concepts of strategy are included in the discussion. Chapter One, "War, Strategy, and the Science of Strategy," barely mentions Marx, focusing on a multitude of international strategists and on an equal host of internal Chinese historians on the topic. Mao Zedong was the only Chinese strategist quoted on the objective-subjective issue in the chapter, with editors Peng and Yao noting that "he first underscored that there were intrinsically objective laws of strategy itself instead of the outcome of subjective will." ⁵²

Peng and Yao add that while Clausewitz climbed to the apex of the bourgeois theory of strategy, the advent of Marxist theory of strategy "signified an epoch-making revolution in strategic theory" as a weapon for oppressed nations. Mao Zedong's set of revolutionary war strategies was a concrete application and development of Marxist theory of strategy in China, they note. Mao merged Marxist military philosophy with Eastern strategic culture. ⁵³

Elements of strategy that require serious exploration include politics, economics, science and technology, geography, cultural

⁵³ Ibid., p. 32.

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⁵¹ Peng and Yao, p. 12.

⁵² Peng Guangqian and Yao Youzhi, editors, *The Science of Military Strategy*, Military Science Publishing House, 2005 (English edition), p. 10.

traditions, military force, and national interests. National interests are listed as the starting point and destination of military strategy. However, the editors also note that high-technology developments have caused revolutionary changes in strategy instead of tactics, a change to the Marxist thought that "technology determines tactics." Now, it seems, the editors are implying that "technology determines strategy." In an age of drone warfare and the use of other high-technology achievements, this may, in fact, be the case.

Chapter Two, "Determinants of Strategy," begins with a short discussion of objective and subjective conditions that help determine strategy. The first paragraph states "although strategy manifests itself in a war conductor's activities of subjective guidance, it is by no means the war conductor's personally extemporary elaboration. Instead it is based on given objective physical conditions..." Mao is quoted as stating "war is a contest in subjective ability between the commanders of the opposing armies in their struggle for superiority and for the initiative on the basis of material conditions such as military forces and financial resources." This is nearly identical to the quote in the 1991 *Officer's Handbook* noted above, meaning not much has changed in this theory over the years. All in all, very few references to Marx were made in this chapter as well. Moreover, Clausewitz was mentioned several times in relation to his dictum that war is a continuation of politics by other means.

Chapter Three, "Evolution and Laws of Strategic Theories," begins with a discussion of the strategic theories of China's successive dynasties, and then moves to view the evolution of strategic theory worldwide. The categories making up the latter section are ancient strategic theory, modern strategic theory, contemporary strategic theory, and Marxist strategic theory. Neither Sun Tzu nor Clausewitz received an individual section like Marx did.

Peng and Yao write that Marxist strategic theory is a new scientific strategic system that analyzes and comprehends war and

⁵⁴ Ibid., pp. 29-30.

⁵⁵ Ibid., p. 57.

strategy with a scientific world outlook based on dialectical materialism and historical materialism. Further, "For the first time in the history of war, they (Marx and Engels) founded a scientific war outlook and a strategic outlook, brought to light the strategic guiding laws of military construction and the guiding laws of strategic operations, and expounded the epistemology and methodology for the correct understanding of war and strategy." The editors give credit to Engels for suggesting the concept of People's War and write that Marxist strategic theory is an epoch-making revolution in the history of military thinking's development. The science of People's War and write that Marxist strategic theory is an epoch-making revolution in the history of military thinking's development.

Even though the next fifteen pages of the chapter are devoted to Mao Zedong, the editors note immediately in that section that "Mao Zedong's military strategic theory is a China-styled Marxist military strategic theory...The most important parts of Mao Zedong's military strategic theory are its Marxist views of strategy."58 This was followed by what the editors referred to as the main parts of Mao Zedong's Marxist view of strategy. The most important element germane to this discussion is the section titled, "The Planning and Implementation of Military Strategy Is a Contest between the Subjective Abilities of Commanders of Both Sides to Direct the War." The section notes that. putting objective material conditions aside, a victor emerges who owes his success to choosing the correct subjective direction, which is a subjective contest between commanders.⁵⁹ The editors close the chapter with three significant statements. The first statement is that "Marx's principle on People's War and his strategic thought of active defense and concentration of forces are of epoch-making significance in the history of strategic development."60 The second is that "Chinese dialectical thinking and the wisdom of Chinese culture make strategic theories especially dialectical and full of stratagem." Finally, the chapter's closing statement is that "it must be taken for granted that the military

⁵⁶ Ibid., p. 101.

⁵⁷ Ibid., p. 102.

⁵⁸ Ibid., p. 104.

⁵⁹ Ibid., p. 105.

⁶⁰ Ibid., p. 126.

thought of Mao Zedong is part of the ideological treasure-house of Marxism...³⁶¹

Chapter Four is titled, "The Laws of Strategic Thinking." Objective strategic thinking "refers to thinking activities which, taking war reality as a starting point, reflect the objective laws of war and strategy objectively." Subjective strategic thinking "refers to the thinking activities that make strategic judgments and decisions based on subjective will, especially the information and experience in one's mind." The editors add that, as for the Marxist scientific outlook and methodology, the PLA, under the leadership of the Chinese Communist Party, has its strategic thinking guided by Marx. The Marxist outlook and methodology enables soldiers to judge situations and cope with them as a whole, since Marxist philosophy always keeps pace with developments of the time. 63

Chapter Five, "Methods of the Science of Strategic Studies," begins by defining strategic studies as cognitive activities in the sphere of strategy. Level one of a multi-level system of cognitive methods is described as Marxist philosophical methods, or dialectical materialist and historical materialist methods. Further, strategic studies are described as directing "one's subjective knowledge to conform to objective reality." Thus, Marxism is introduced in this chapter in a very strong manner as the leading cognitive method for studying strategy. There are no similar references to Sun Tzu in this regard.

The first section of Chapter Five is titled, "Persist in Taking Marxist Philosophy as the Guiding Principle." Here editors Peng and Yao note that Marxist philosophy "is of universal significance to correctly understanding and reforming the world and, no doubt, is the scientific guidance that strategic studies must follow." Marxism is described as an ideological weapon for strategic studies that helps one understand the essence of war and strategic problems. It enhances the

⁶¹ Ibid., p. 128.

⁶² Ibid., p. 134.

⁶³ Ibid., p. 144.

⁶⁴ Ibid., p. 149.

⁶⁵ Ibid., p. 150.

ability to draw closer to objective truth and "provides us with a golden key for analyzing strategic problems comprehensively, dialectically, objectively, systematically, continuously, concretely, and connectedly. It is an essential method by which a revolutionary political party correctly determines its strategic and tactical policies both in political and in military affairs."66

The rest of the book looks at various applied issues of strategy (maneuver, offense, control, defense, etc.) and was not examined for its application to Marxist principles.

The Theory of Military Strategy

The Theory of Military Strategy provides a comprehensive look at several aspects of strategy, all of which reflect its objective and subjective nature. These include strategy's characteristics, missions, basic theory, planning parameters, and restraints, and how strategy is theorized, utilized (in military operations other than war, in controlling war, in military construction, in developing capabilities, and in mobilization), and formulated.

Authors Fan Zheng Jiang and Ma Bao An note that elevating CNP in relation to other nations was one of the main missions of the country. Military strategy must start from objective realties of this sort.⁶⁷ Military strategy has a political nature that determines its missions and tasks, an epochal nature in that these missions and tasks can change over time, and a guiding nature that selects the appropriate path, scale, and speed of development most beneficial to realizing national security interests of China. 68

Strategic measures are composed of material forces/objective laws that must be grasped before subjective guidance can unleash material force. Objective possibilities and subjective efforts are thus

⁶⁶ Ibid.

⁶⁷ Fan Zheng Jiang and Ma Bao An, *On Military Strategy*, Beijing National Defense University Publishing House, 2007, p. 10.

⁶⁸ Ibid., pp. 43-45.

interconnected and blended, which gives military strategy its high degree of flexibility and diversity. ⁶⁹ Moreover,

Because human societies are constantly growing, strategies themselves are also constantly developing and changing along with them. After the 1980s, there was an unprecedented upsurge in China's study of strategy and substantial research results were obtained. The structural system that has taken shape at present can be said to divide strategy into roughly three levels⁷⁰[(national strategy, national military strategy, strategy of the military services].

The focus on Marxist thought even appears to have superseded some historical legacies, if Fan and Ma's work is to be believed. They write in the section on the missions and tasks of strategy that:

Despite the extraordinary richness of China's ancient strategic legacy, maturity of theory, and the summation of vast military rules that even today remain especially valuable and also play an important role in national unity and territorial expansion, when speaking from a political perspective, the mission and tasks it bears do not represent the interests of the masses of the people. The new military strategy created by the Communist Party of China during the course of leading China's revolutionary struggles has thoroughly altered the political nature of China's military strategy of several millennia, truly endowing its mission and tasks with revolutionary political content, making it fully representative of the basic interests of all China's people.⁷¹

The authors add that the Communist Party of China formed a new military strategy based on Marxist military thought, with Mao

⁶⁹ Ibid., pp. 19, 27.

⁷⁰ Ibid., pp. 25-26.

⁷¹ Ibid., p. 43.

Zedong's military thought as its soul. Basing China's future on Marxism is a gamble, it appears, since there is a huge risk involved with stating that the missions and tasks of cultural traditions are not in line with the interests of the people. Putting the interests of the relatively young (by Chinese standards) interests of the Communist Party above those of ancient cultural traditions will not go over well if the Party fails to produce even a modicum of stability and economic development. Nationalism is based around cultural traditions (even the concept of humiliation) and not around the more recent history of communism in China.

Chapter Three, "The Objective Environment of Military Strategy," is perhaps the most important section in the book due to its direct explanation of strategy's elements. Military strategy is defined as consisting of planning and guidance for the situation of military struggles as a whole, which means taking an objective approach with subjective matters. Here objectivity is referring to the strategic environment, which is "the important foundation upon which military strategy is dependent for its formulation, the extrinsic conditions upon which military strategy is dependent for its implementation, and the arena upon which the strategic directors are dependent for displaying their talent in planning and skill in directing."⁷² The strategic environment refers to the objective situations that confront national security. These situations mainly include the international and domestic areas of politics, economics, military affairs, science and technology, and geography, key elements of CNP. The strategic environment and the CNP of nations are dynamic and constantly changing.

Fan and Ma then state categorically that "The relationship between the strategic environment and military strategy is a relationship between objective reality and subjective guidance. Properly understanding and analyzing the strategic environment is the prerequisite for properly formulating and implementing military strategy." Thus, properly assessing the strategic environment will expose the advantages and disadvantages that sides possess and offer ways that subjective

⁷² Ibid., p. 59.

⁷³ Ibid.

initiatives can be used to implement strategy. Characteristics of the times, the world's strategic structure, strategic trends of principal countries, and so on must be emphasized and provided attention, although a country's geographic environment, political environment, and CNP provide the most immediate influence on military strategy.⁷⁴ CNP is defined in the following manner:

Comprehensive national power, which is made up of a country's economic strength, defense strength, and national cohesion, is the sum of the country's total material strength and spiritual strength. It is the epitome of a country's strategic capabilities. All military struggles and military activities, in the final analysis, must rely on CNP, in particular economic, science and technology, and military strength, for support.⁷⁵

Later the authors go on to say that "Military strategy is a concentrated reflection of a country's will and capabilities; it is restricted by conditions such as the country's politics, strategic thinking, and military strength, and it is influenced by factors such as the country's economy, diplomacy, science and technology, and geography."⁷⁶

Strategic decision making is accurate when the guidelines it formulates are in line with objective reality, the authors note. The size of combat objectives chosen by decision makers will determine the length of a war, its scale, and its intensity. Favorable strategic situations must be created. This is an imperative in wars fought under informatized conditions, since the tempo of war is accelerating and victory will not come in the later stages of a war but rather in a war's opening salvo. Whichever side is able to create a key engagement in its favor will win the initiative in the overall strategic situation. Actions must force an opponent to engage in decisive battle without ample time and place to prepare. Therefore, creating favorable conditions before

⁷⁴ Ibid., pp. 61, 64.

⁷⁵ Ibid., p. 65.

⁷⁶ Ibid., p. 144.

⁷⁷ Ibid., p. 149.

⁷⁸ Ibid., p. 251.

battle, such as establishing a tactical or strategic advantage, is so important.⁷⁹

The authors added that the use of strategy must be tied to modern technology, thereby elevating traditional strategy's use of tricks to new levels. Technology provides new carriers for displaying the true and the false, enabling deception in new forms. System sabotage warfare will continue to be a key characteristic of modern warfare, and main targets still include key C4ISR components. Capturing operations will be the main measure through which victory is seized. Capturing and maintaining control will remain an overall focus for combat guidance. As measures for information operations advance, strategic objectives will be "directly met through campaign and even tactical actions in the practice of war." Thus, in accord with Peng and Yao's work, once again the authors appear to be altering the Marxist dictum that "technology determines tactics," changing it to imply that "technology now determines strategy."

Finally, the authors note that the works of Mao Zedong, Deng Xiaoping, Jiang Zemin, and Hu Jintao are "all the result of the Sinification of Marxist theory in the field of military affairs; they are the scientific theory guide for China's military strategy..." Further, "Mao Zedong military thought is built on the foundation of the scientific world view and methodology of Marxism and contains the essence of the traditional military wisdom of the Chinese people."

Marx and Engels on Clausewitz

Marx and Engels often referred to the work of Clausewitz in their study of warfare. Their discussion has been referenced in the work of Xia Zhengnan, a Colonel and researcher at the War Theory and Strategy Research Department of the Academy of Military Science. Two of Xia's

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⁷⁹ Ibid., pp. 292-295.

⁸⁰ Ibid., p. 290.

⁸¹ Ibid., p. 285.

⁸² Ibid., p. 278.

⁸³ Ibid., p. 266.

⁸⁴ Ibid., p. 87.

⁸⁵ Ibid.

articles will be examined here. They do not lay the same stress on Marxism as the previous works but still mention its methodology. What is of interest is that the Chinese recognize the value of Clausewitz's work *On War* and still read it with great interest. He remains a recognized writer of superb skill.

In the first article, "Marx and Engels on Clausewitz," Xia noted that, while developing their proletarian view on strategy, Marx and Engels were continually influenced through their study of On War. Both men were deeply impressed with the work and its author, with Engels stating that Clausewitz was "a natural genius." They agreed with Clausewitz's thinking about the Spanish people's war and his discussion of Napoleon's combat thought and interpretations of campaigns. However, Engels noted on several occasions that Clausewitz, despite his brilliant thinking, did not always fit his tastes. He wrote to Marx in 1852 that all military authors should have a spirit for historicism and materialism and that he was against unrealistic pedantic research that is divorced from reality. Clausewitz, he noted, idealized war, divorcing it from the historic environment and material conditions upon which its existence and growth depend. Perhaps more important, Clausewitz was viewed as one who removed political categories from class struggles. That is, Clausewitz regarded politics as "representing all the interests of society as a whole, writing off the class nature of politics."86 Marx and Engels believed that politics was a concentrated expression of economics; that war was a violent struggle between classes; and that Clausewitz over exaggerated the role of spiritual factors.⁸⁷

Xia's second article, "The Prevalence of Clausewitz's *On War* in China," reviewed Chinese attempts over the years to capture the essence of the work. Xia noted that

Famous Prussian military strategist Clausewitz's masterpiece, *On War*, was the first work in the history of military thought to consciously apply classical German

87 Ibid.

⁸⁶ Xia Zhengnan, "Marx and Engels and Clausewitz's *On War*," *China Military Science*, No. 5 2007, pp. 129-137.

idealist dialectics to systematically summarize the foundation of modern western military science laid out by the experiences of the Napoleonic Wars. Its insight into the essence of war reflects the progressive trends and revolutionary spirit of the emerging bourgeoisie regarding war theory, not only having a profound impact on the military circles of the bourgeoisie, but also becoming one of the theoretical sources for Mao Zedong military thought.⁸⁸

The Academy of Military Science's translation of *On War*, which was released in 1965, drew particular praise from Xia. He noted that the translation made it clear that classical German philosophy of that time influenced Clausewitz's ideas, yet on occasion those ideas were incorrect. Because of limitations of that period "some views, specifically some of the specific matters regarding military scholarship, are incompatible with today's objective realities." Still, Xia recognized Clausewitz as the first military expert to apply the dialectical method to study war theory.

Conclusions

There appear to be two reasons as to why Marx trumps von Clausewitz with regard to Chinese military strategy. It is not because Clausewitz is not held in high regard, for he is. His work, *On War*, continues to be studied and analyzed and Chinese scholars openly recognize his brilliance. First, it seems to be ideologically incompatible for the Chinese to inculcate Clausewitz's "bourgeois" military strategy into a communist system. Doing so waters down communist ideology and leads to serious questioning of Marxism in general—are there other areas of communist thought that are also wrong? Second, the concepts of objective reality and subjective thought provide a template or thought pattern through which to view situations and apply a strategy. Apparently Clausewitz's recognition of the dialectical thesis, antithesis, synthesis process did not go far enough for the Chinese in the

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89 Ibid.

⁸⁸ Xia Zhengnan, "Prevalence of Clausewitz's *On War* in China," *China Military Science*, No. 5 2004, pp. 103-115.

development of these two factors. The subjective factor in particular brings into play a traditional Chinese strength, the use of stratagems.

Knowledge of the PLA's reliance on Marx as a key source of strategic thinking assists Western analysis of Chinese military strategy, offering a template of sorts through which to watch and evaluate the PLA's strategic decision-making process. The thought process includes evaluating the strategic environment (objective reality) via the CNP analysis and evaluating and exploiting that assessment through subjective initiative (the use of stratagems or other methods) in order to achieve or establish a strategic advantage. The same thought process works not only for the military but also for energy exploitation, diplomatic negotiations, cyber exploitation, and other areas of geothinking. Two case studies later in this text, on cyber and geothinking, attempt to demonstrate this fact.

There are issues that could threaten the PLA's reliance on Marx, of course. The gap between rich and poor is now more dramatic in China than ever before. This could potentially result in the alienation of the populace from communist ideology, especially in light of the exposure of rampant corruption in the Communist Party of China. The Party demands abject loyalty from its officer corps, but the latter has not escaped corruption indictments either. Both corruption and the rich-poor gap threaten stability and order. The Party must turn back any popular backlash resulting from this situation. At the same time, it cannot ignore important historical elements of Chinese culture and its traditional military heritage (ancient thought) at the expense of Marxism. However, none of these factors or threats appears to endanger the Marxist method of thought associated with the development of strategy at the present time. In fact, Marxism in general is still receiving much attention. After the recent trial of Bo Xilai, for example, journalists were required to sit through at least two days of Marxism classes in an effort to shore up ideological unity.90

⁹⁰ No author provided, "China's Press Corps Ordered to Study Marxism," *China Digital Times*, 28 August 2013.

The strategic environment may be transforming but much of the thought process analyzing the environment appears to be staying in place. The objective reality-subjective initiative condition continues to be found in Chinese assessments of the strategic environment. For example, Chinese Premier Li Keqiang recently noted that cooperative frameworks in East Asia are in line with the objective reality of East Asia's diversification. Information warfare and system sabotage techniques still are recognized as elements of objective reality. The ability of subjective and objective conditions to integrate and manipulate conditions still is used and results in a high degree of effectiveness of information warfare actions, as the many successful reconnaissance activities of the PLA has demonstrated. The subjective condition often still refers to the methods, measures, and means to conduct an activity with a stratagem.

For the short term, then, the Marxist view of assessing the strategic environment should definitely be on the radar of US analysts. An understanding of the Marxist method provides analysts a window for understanding and decoding Chinese strategic moves. His method should be studied and remain as one way to view and comprehend Chinese strategic thought. As one officer noted:

More and more new emerging situations and new circumstances arise to challenge the traditional "restrained type" of military strategic thinking. We must adjust and transform military strategic thinking immediately...into a tool of understanding to make the subjective guidance match the objective reality and to not make or decrease errors on strategic instructions and strategic decisions. ⁹²

⁹¹ "Li Keqiang, "Jointly Interviewed by ASEAN Countries' Media Outlets," *Xinhua Domestic Service*, 8 October 2013.

⁹² Zhong Haipeng, "Military Strategic Thinking Should Also Undergo

^{&#}x27;Transformation'," Guofang, March 2012, pp. 13-14.

CHAPTER TWO: OF STRATAGEMS AND SHI

Introduction

Over its 5,000 year history, Chinese leaders have discussed and written on the topic of strategy at great length. In the 1997 *Chinese Military Encyclopedia*, for example, the term strategy is defined in association with other concepts (strategic cover, strategic concept, strategic target, strategic thought, etc.) some 100 times. No other topic has that many entries. For example, there are only four or five entries for Mao and for the concept of People's War in the encyclopedia. Thus, a multitude of ideas associated with strategic thinking appear to remain under consideration today, even after being rethought and readjusted to fit the ideology of the Communist Party of China (CPC).

The strategic thought process appears to be a mix of classical Chinese military history, the contemporary environment, and communist party ideology. After examining the situational context or environment (objective reality) and using subjective thought to plan and guide responses, the outcome of a properly planned objective-subjective analysis is the gaining of a strategic advantage.

The focus of this chapter is, first of all, on the latter part of the analytic process, the subjective aspect. This refers in particular to the concept of stratagems (ways to mislead an opponent's perceptions, will, thinking, or emotions). Second, the concept of strategic advantage or *shi* is discussed. *Shi* is the goal of strategy's objective and subjective aspects, to attain an advantage over an opponent after evaluating a situation and influencing it. *Shi* can be found in chapters one, five, six, and ten of the ancient Chinese military classic the *Art of War*. Chapter Six notes that "the military is without fixed *shi* and without lasting form." Thus, there are many ways to achieve a strategic advantage.

Stratagems

When US planners gather to make decisions for an upcoming operation, they generate courses of action (COA). A commander then examines his options and decides which COA provides the best chance

for success. Joint Publication 1-02, *Department of Defense Dictionary of Military and Associated Terms*, defines a COA as

Any sequence of activities that an individual or unit may follow. 2. A scheme developed to accomplish a mission. 3. A product of the course-of-action development step of the joint operation planning process. Also called COA. (JP 5-0)⁹³

When Chinese planners gather to make decisions, they consider the objective factors before them and then generate potential stratagems for use by commanders, instead of COAs. A stratagem is a concept designed to mislead an enemy's perception, thinking, and emotional processes according to the Chinese. Its function is to fool an enemy force by misleading his thinking process, whereas a COA is a sequence of actions to follow or it is a scheme adopted to accomplish a mission. These definitions have been used for years, but they differ to a degree in intent. The concept of manipulation appears to be inbred in a stratagem but not as clearly in a COA. However, Desert Storm COAs used the manipulation of reality (a fake marine landing before the "left hook") so manipulation is certainly not a lost art among US planners.

Subjective ability (the contest between opposing commanders) refers to the use of stratagems by commanders to gain an advantage and superiority over an opponent. Stratagems are based on trickery or diverting an adversary's attention to his detriment. Stratagems are the "artistic character" of strategy, according to the 2001 book of Peng and Yao. They note that

Strategic guidance means a competition of strategic wisdom and stratagems on the basis of certain physical strength. The artistic character of strategic guidance lies in its wise stratagems. Accordingly in strategic contest a

http://www.dtic.mil/doctrine/new_pubs/jp1_02.pdf.

⁹³ Joint Publication 1-02, *Department of Defense Dictionary of Military and Associated Terms*, 12 April 2001 (as amended through 15 November 2013 at the time of this writing). The Internet version can be found at

strategic conductor's subjective initiatives are highly expressed in his resourcefulness and decisiveness, circumspection and far-sightedness, flexibility and responsiveness, and surprise moves to defeat the enemy. Outstanding levels of stratagem can ignite an extraordinary energy from the national strength available and turn the passive to the active and transfer inferiority to superiority; it can secure the objective of winning by a few and winning superiority by using inferiority.⁹⁴

However, after a detailed explanation of strategic thought from various perspectives, Peng and Yao note that the science of strategy is "a military science explicitly characterized by practice, comprehensiveness, antagonism, stratagem, and prediction."95 The discussion of stratagems is especially interesting, since the authors note that a strategic conductor's subjective initiatives "are highly expressed in resourcefulness and decisiveness, circumspection sightedness, flexibility and responsiveness, and his move in surprise to defeat the enemy."96 "In a sense, it can be said that the science of strategy is a science of wisdom to sum up the laws of using stratagems."97 Somewhat paradoxically, Peng and Yao also note that "stratagem has always been the main idea of traditional Chinese strategic thinking," which juxtaposes ancient thought against the objectivesubjective criteria of Marxism.

The issue of resourcefulness is of prime importance. Peng and Yao listed it as a sub-element of stratagems. Successful strategies require resourceful thought. This requires "agile ingenuity" and methods such as using different countermeasures to deal with different circumstances or using a variety of resources and plans to deal with complicated situations. Resourcefulness makes up for shortcomings in military strength and the technological levels of weapons and equipment. Further, strategic planning is witnessing a combination of traditional

⁹⁴ Peng and Yao, p. 28.

⁹⁵ Ibid., p. 26.

⁹⁶ Ibid., p. 28.

⁹⁷ Ibid.

⁹⁸Ibid., p. 19.

resourcefulness and modern high-technology measures, making strategy more flexible, rich, and clever. ⁹⁹

Today, one factor that COAs and stratagems share is a reliance on information technology (IT) components. For the US armed forces, IT offers ways to better integrate and coordinate COAs. The Chinese also see IT as a valuable asset. The editors of the 2002 book *Campaign Stratagems* (a book published by China's National Defense University Printing House), Zhang Xing Ye and Zhang Zhan Li, wrote that "the contents of the stratagem are continuously changing and renewing; the methods of stratagem are becoming more comprehensive; the space encompassed by the stratagem is multi-directional; and the technological content in stratagem methods is unique." Stratagems thus remain an effective way of planning for engagements with an opponent and manipulating an opponent's reactions.

Li Qi writes in the introduction to *Campaign Stratagems* that a campaign stratagem occurs when "the commanding officer, on the basis of certain strength, fully performs his subjective initiative, and manipulates and drives the enemy in the confrontation of intelligence, so as to create a situation that is favorable to his own troops but unfavorable to the enemy." The transformation from static strength to operational efficiency requires the exploitation of friendly campaign strength, enemy campaign strength, and the campaign environment. This analysis is commonly referred to as uncovering *shi*, the sum of all the factors that impact on the performance of the respective operational efficiency of two sides in a general confrontational situation. Shi is discussed in more detail in the next section of this chapter.

⁹⁹ Ibid., p. 20.

¹⁰⁰ Zhang Xing Ye and Zhang Zhan Li, *Campaign Stratagems*, National Defense University, 2002. This author had access only to a paper translation and not the book. Therefore there are no references to specific pages, since the paper translation did not correspond to the same page numbers in the original.

¹⁰¹ Li Qi, "Introduction to Campaign Stratagems," in Zhang Xing Ye and Zhang Zhan Li, *Campaign Stratagems*, National Defense University, 2002.

¹⁰² Ibid

Zhang and Zhang state that in the Chinese language, *mou* is idea and stratagem, while *lue* is plan and stratagem. Together, *moulue* is stratagem, trick, and/or tactic. ¹⁰³ The concept is adaptable and useful in decision making, developing subjective initiative, and deception, and it is applicable to politics, the economy, international affairs, and military affairs. Still, it is difficult to capture the overall essence of a stratagem and what it implies to Chinese theorists who use the term. Dr. William Whitson, an American who is a Chinese specialist with years of experience in the field of military studies, offered his perspective on the interpretation of a stratagem:

I have never seen a Western term that adequately expresses what it means. Westerners don't understand the essence of the concept. They seek oversimplified words like 'deception' or 'disinformation.' The practitioner of mou lue zhan starts from the premise that he is engaged not in destroying the enemy physically but in confusing him mentally, hopefully so confusing the enemy that he will become paralyzed. The idea is based on a deeper philosophical idea that any situation is not objectively real. It is instead a projection of many perceptions, especially the perception of leaders. So the focus of mou lue zhan is an enemy leader's perception...it might be translated as 'attitude warfare' or 'perception warfare.' Westerner's don't understand it because they are taught to believe that victory comes to those with things that make the loudest noise and are the most destructive. To the mou lue warrior, such a viewpoint is childish and wasteful. 104

Dr. Whitson's viewpoint thus coincides with that of some Chinese specialists, such as Li Bingyan, who note that warfare is based on the use of stratagems in the East and on technology in the West.

¹⁰³ Zhang and Zhang.

¹⁰⁴ E-mail correspondence with Dr. William W. Whitson, 13 April 2004. Dr. Whitson is the author of *The Chinese High Command*, a comprehensive study of China's military elite. He served as a military attaché to Taiwan and Hong Kong, and received his PhD from the Fletcher School of Law and Diplomacy.

Dr. Deborah Porter, a Chinese language specialist at the University of Washington, added a supporting yet slightly different interpretation of the term. She writes that in the ancient dictionary *Erya mou* is defined as "heart." An annotator of the definition commented that "*mou*" is using the heart to think (in a calculating way). *Mou* is also defined as the type of thought that assesses the difficulty or ease of some action. Sixteen synonyms of the term were listed in the *Erya* dictionary, including to plan, to delimit, to surprise, to search, to investigate, to visit, and to observe (for the purpose of calculation). In the section on "*Shi Yan*" (explanations of verbal expressions), where *mou* is defined by itself, the same definition of "relying on the heart to think" is listed but with more commentary: "the heart is [like] the finest of thread; [its ability] to recognize/discern the minutest [details] ensures that there is no object that cannot be penetrated; the heart is the residence of cognition." ¹⁰⁶

The Chinese word *zhan*, Dr. Porter adds, was usually used in the context of warfare and had an ancient meaning more to do with the emotion/sensation of fear. In a military context an understanding of the objective would be how fear is manipulated, created, and taken advantage of—often in tandem with an element of "surprise"—in a battle context. It is also understood as a word for trembling, such as a shaking movement as a response to fear. ¹⁰⁷

The term *lue* is not as ancient as the other two, at least as is recorded in paleographic and dictionary sources, Dr. Porter notes. The initial sense of the term was agricultural. The semantic sense of the term may have evolved to include the sense of plot or ploy. It has nothing to do with battle. She concludes that the word *lue* in *mou lue zhan* refers to the plan/plot and calculations/observations conducted with the object of manipulating (psychologically) opponents' emotions, especially those associated with fear. Thus, with this complicated etymology, it is not

¹⁰⁵ *Erya*, Beijing: *Zhonghua Shuju*, 1982, Vol. 1, p. 19a. Footnotes based on e-mail correspondence with Dr. Deborah Porter, University of Washington, 18 April 2004. ¹⁰⁶ Ibid., p. 52b.

¹⁰⁷ Ibid., p. 73a.

¹⁰⁸ E-mail exchange with Dr. Porter, 18 April 2004.

surprising that "stratagem" is a concept not entirely understood by Western audiences.

Stratagems have historically been a key component of China's military culture. They are found in almost every aspect of Chinese military thought, to include command and control and information war. Stratagems became the bedrock of such classic works as *The Thirty-Six Stratagems of War* and other such publications. They have found use in the electronic age as well. One of the first mentions of their use after 2000 was in the Chinese journal *China Military Science*, where authors Major General Niu Li, Colonel Li Jiangzou, and Major Xu Dehui (all from the Communications and Command Institute) defined information warfare (IW) stratagems as "schemes and methods devised and used by commanders and commanding bodies to seize and maintain information supremacy on the basis of using clever methods to prevail at a relatively small cost in IW." 109

As but one example of stratagem's use, consider the PLA's focus on influencing an opponent's decision-making cycle through stratagems. The PLA notes that the developer of a stratagem must do everything possible to control the enemy's method of intelligence analysis and processing, an estimate based on objective reality. This should make all US personnel wonder just how much the Chinese analyze our intelligence cycle (planning, collecting, processing, analyzing, disseminating) for vulnerabilities or exploitation. It appears that they do so quite closely. The goal of controlling the method of intelligence analysis, according to the PLA, is to put the stratagem developer in sync with the enemy's "intelligence-judgment-decision" process and induce the enemy to make decisions as one would expect him to do. This further enables the attainment of shi or a strategic advantage.

To win with stratagem in the information age the PLA believes that a strategist must link technology, strength, and stratagem to control victory. A good strategist is a good thinker who is innovative, creative,

¹⁰⁹ Niu Li, Li Jiangzhou, and Xu Dehui, "Planning and Application of Strategies of Information Operations in High-Tech Local War," *Zhongguo Junshi Kexue (China Military Science)*, No. 4 2000, pp. 115-122.

and flexible in his use of stratagems. A good stratagem performs a host of cognitive tricks, to include deceiving, controlling, inducing, arousing, creating, innovating, or manipulating another person or an entire staff.

The editors of the 2002 book *Campaign Stratagems* (Zhang and Zhang), note that "the side being in a strategically superior position, planning first and fighting later, winning through strategy, is able to fully promote high-tech superiority..." A human's control over high-tech weapons and his ability to integrate weapons with stratagems makes one maximally effective. The editors further state that in Chinese, *moulue* is stratagem, trick, and/or tactic. The concept is adaptable to decision-making, subjective initiative, and deception, and it is applicable to politics, the economy, international affairs, and military affairs.

A main element of campaign stratagem is the battle of wits. With action verbs such as manipulate, deceive, trick, and control, this is understandable. Editors Zhang and Zhang list three features of the battle. First is the competition of contradictory interests between two sides. Second is the manner in which decision-makers interact and attempt to influence one another. Knowing the decision-making process of one's opponent allows for the manipulation of that process. Third is the commander's personality and how he or she reacts under pressure in an uncertain environment. A study of hobbies, weaknesses, and flaws of opposing commanders is "the best breach point for stratagems." This implies that the Chinese conduct intense data-gathering on the personalities and interests of foreign commanders and leaders.

There are three campaign stratagem methods. The first method is to "break up and unify," changing the balance of static strengths of both sides in terms of time and space. The second method is to use special and regular forces, applying general concepts in irregular ways. The third method is to use deception and real actions (alternating between them). Integrating these three methods can improve chances of success. The editors periodically mention these three methods throughout the text.

¹¹⁰ Zhang and Zhang.

¹¹¹ Ibid.

¹¹² Ibid.

When applying these methods, creativity and flexibility become the soul of a campaign stratagem's "battle of wits," since they are the primary means for the creation of a situation. 113

The editors believe that differences exist among Chinese and foreign stratagem experts due to objective conditions, each nation's operational environment, and various cultural and military heritages. Under various conditions the concept of risk, for example, would be treated differently. Zhang and Zhang note that the PLA stresses being active and steady, pursuing certain victory, engaging in prudent early engagement (could this be applicable to cyber reconnaissance?), encouraging reasonable risk-taking, and avoiding unfavorable decisive battles. In the opinion of the editors, Western armies use common sense as the primary component of their stratagem thought process, along with systems theory, information theory, control theory, images, intuitional thinking, associative thinking, and psychology and behavioral science. 114

Simultaneously, the weaknesses and limitations of an enemy's high-tech equipment must be exploited. Li Qi believes that the development of technology has opened up more avenues for the use of campaign stratagems. Since the entire strategic depth is now open for exploitation, this creates more flexibility in target selection and the employment of stratagems. Engagement relationships are more complex due to the uncertain mix of symmetrical and asymmetrical operations.

Li adds that an understanding of "disposition" is crucial to stratagem application. This is similar to the concept of *shi* mentioned earlier. By disposition he is referring to force composition, battlefield environment, and campaign engagement methods. The concept of a force's disposition or force superiority also has changed from concentrating forces such as troops and weapons to concentrating

114 Ibid.

¹¹³ Ibid.

¹¹⁵ Ibid.

¹¹⁶ Li Qi, "Campaign Stratagem Application under High-Tech Conditions," in Zhang Xing Ye and Zhang Zhan Li, *Campaign Stratagems*, National Defense University, 2002.

¹¹⁷ Ibid.

capabilities based on issues such as information mobility and long-range firepower. Capability superiority consists of the "mobile dispersal of entities (forces and weapons) and mobile concentration of capabilities." As an example Li used the Kosovo conflict where forces were dispersed all over Europe, the US, and space, yet operational capabilities were focused on an area to form theater superiority in what the US termed "global force integration." Long-range firepower and information mobility do not require the time or the infrastructure that ground troops require to concentrate assets on an area. It is also important to match a campaign stratagem with the overall political, economic, and diplomatic situation. Only when the stratagem matches the strategic situation can an enemy be convinced of an action. ¹¹⁸

One section of *Campaign Stratagems* (perhaps the most important) is HOW to manipulate enemy commanders. The section opens by stating that not only high technologies, but also control theory, information theory, psychological theory, organization and behavioral theories, and the methodology of systems engineering science are required to guide a campaign stratagem's planning and execution. This includes rationally selecting campaign objectives and, most important of all, as noted earlier, deductively devising stratagem information to control the "intelligence-judgment-decision" process of the enemy. 119

To deductively devise stratagem information requires the meticulous preparation of special information. An information developer's application of a stratagem requires the creation, transmission, receipt, and processing of information as the developer intends. Stratagem information is based on the development of specific information for different control targets. Some control targets require three things: supporting information to affirm the correctness of an enemy's judgment; interfering information of an independent or contradictory nature; and the blocking of key information concerning friendly intentions. One should alter enemy commanders' original judgments. They must be fed negative information, supporting

¹¹⁸ Ibid.

¹¹⁹ Ibid.

information, and interfering information, and key information must be blocked. 120

The developer of a stratagem must do everything possible to control the enemy's method of intelligence analysis and processing. The stratagem must consider the following points:

- Take into consideration an enemy's belief system, formed from knowledge structures, subjective leanings, method of thinking, and personality to meet concerns and needs and influence judgments.
- Take into account the enemy's decision-making organizational mechanisms. Anticipate distortions and insert redundancy of key information. Influence the basic characteristics of key individuals and links such as the intelligence processing procedures of the enemy.
- Take into account when sending out the first batch of stratagem information that it should be highly seductive and influential, followed by supporting information.
- Take into account political, superior/boss, and environmental pressures and their impact on decisionmaking.¹²¹

According to Zhang and Zhang, the PLA is developing institutions to prepare and monitor the use of stratagems. The PLA actively studies the analytical processes of foreign militaries to apply the proper stratagem techniques against them. Stratagem techniques enable the PLA to create a situation that is favorable to them. They are preparing for future "battles of wits" now in peacetime.

Transmission channels must be carefully controlled. Those channels that China controls completely, partially, or not at all are called white, gray, and black, respectively. If black channels uncover friendly

¹²⁰ Ibid.

¹²¹ Ibid.

(that is, Chinese) stratagems, then the stratagems can be used against friendly (Chinese) forces. This is the worst of outcomes, to fall into a counter-stratagem trap. The use of white channels that the enemy (US, etc.) considers as reliable is the best for transmitting information. Further,

> We [China] must pay a lot of attention to the cultivation and development of reliable channels during peacetime so as to develop enemy trust in these channels and to transmit stratagem information during war time. Under high-tech conditions, a strong enemy tends to highly trust, and heavily rely on, high-tech intelligence reconnaissance means. Therefore we must pay close attention to the characteristics of the enemy's high-tech reconnaissance means and study effective deceptive measures. 122

Invariably, Li adds, some stratagem information will be distorted or lost due to an inability to properly predict certain subjective or objective responses. As a result multiple channels must always be utilized. In addition, feedback channels must be established to monitor the success or failure of the stratagem and to avoid having a counter-stratagem developed by an enemy.

Stratagems use the scientific way of thinking, which is a way "to analyze, design, research, manage, and control such a complicated system and provide the most optimized ways and methods."123 It is first necessary to defeat an enemy by thinking and only later by action. 124 Simultaneously, what is termed "psychological position exchange" must be accomplished. This means making a parallel comparison with the opponent's thought processes in order to imagine what he would do and think, that is, to put oneself in one's opponent's shoes. 125

123 Ibid.

¹²² Ibid.

¹²⁴ Ibid.

¹²⁵ Ibid.

In 2003 Major General Niu Li, a professor at the communications command academy, and Lieutenant Colonel Wu Jifeng wrote on military strategic concepts in the 21st century. Stratagems still played an important role in their assessment. They stated the following:

It is necessary to be good at implementing stratagems, changing the main means of operation from using quantitative superiority to using stratagems and technical means to win victories. The implementation of military stratagems should make progress along with the advance of the times....if we cannot properly combine military stratagems with high-tech weapons and armament and cannot implement great stratagems in the light of the requirements of the times on the basis of high-tech development, then it is hard for us to win victories... 126

In 2007 Zhang Shiping wrote that "policies, strategic guidelines, and stratagem are closely related to strategy." He stated that "strategy is a matter of the objectives, general guidelines, policies, and principles related to national security, war preparations, and war implementation; and a stratagem is a scheme or tactic used in the methods and measures for strategic planning and strategic practices." Strategic guidelines, he adds, can include concepts such as "lure the enemy in deep" or "active defense." Thus, the PLA's guiding strategic thought, the active defense, can be taken to imply a stratagem depending on one's point of view.

In 2010 Xue Guoan wrote on the characteristics of China's traditional strategic thought. He appeared to focus more on cognitive aspects, to include soft power. Xue is an authoritative figure. He is the Deputy Director of the Department of Strategic Studies at National

¹²⁶ Niu Li and Wu Jifeng, "On the New Concept of Chinese Military Strategy in the 21st Century," *China Military Science*, No. 2 2003, pp. 85-90.

¹²⁷ Zhang Shiping.

¹²⁸ Ibid.

¹²⁹ Ibid.

¹³⁰ Xue Guoan, "Characteristics of China's Traditional Strategic Thought," *China Military Science*, No. 3 2010, pp. 116-122.

Defense University (NDU). The abstract that precedes his article notes the following:

This thinking embodies the following distinctive characteristics: overall integrity, long-term stratagem, the combination of military and non-military strategies, equal importance attached to stratagem and real strength, priority to soft tactics, and the principle of gaining mastery by striking only after the enemy has struck...on the other hand, however, this thinking has such shortcomings and deficiencies as over-emphasis on classics, little attention to innovation, over-emphasis to principles but overlooking the role of armament and ignorance of the importance of maritime power. ¹³¹

Xue notes that even in ancient China, consideration was given to the overall situation, since Sun Tzu used five factors (the way, heaven, earth, command, and rules and regulations) when considering warfare. When considering the overall plan for war, it is necessary to take in the overall situation and use stratagems wisely in exploiting circumstances to one's advantage. 132

Xue chides Western strategists for their tendency to embrace power, only resorting to stratagems as a last resort. The Chinese, on the other hand, as an agricultural society, embrace the natural environment and geographical factors. Descriptions of how stratagems are devised are as important as details of battles in historical works, he notes. Xue states that devising stratagems at the strategic level is a focus of Chinese practice. A stratagem can coordinate the overall situation and enable limited military power to generate "immeasurable efficacy." Another important aspect is to attach equal importance to stratagem and actual strength.

Xue states that the key to using the strategy of soft military force is to apply "perfect stratagems to weaken one's adversary and maintain a

¹³¹ Ibid.

¹³² Ibid.

low profile in developing one's national strength." Such a strategy is enhanced by a protracted war in which one strikes when the opportunity arises. One is reminded of Muhammad Ali's rope-a-dope tactic of waiting until his opponent exhausted himself by pounding away at Ali's covered up body. China advocates the same concept, switching to the offense only after one's opponent has exhausted his power. However, Xue concludes with this advice: when a favorable opportunity for battle emerges, China must not stick to its moral concept of not firing first. Rather, China should use the opportunity to defeat an adversary in one move. Soft military power is equivalent to the strategy of active defense.

It is important that US national security personnel understand that the objective-subjective, stratagem, and shi criteria can be applied to political, economic, and other fields of study. There may well be Chinese institutes in existence now that are involved in the study of campaign stratagems to manipulate US financial flows or to create other disruptive situations. The US and its allies must prepare now for such eventualities by thinking in terms of the Chinese approach, looking at our strategic environment from the vantage point of disruptive stratagems. There are also reports of Chinese agencies involved in the development of complex stratagems. Unitary stratagems, or those composed by individuals, are giving way to stratagems composed by groups of people or machines. In regard to machines (computers) and the military, in one Chinese book from ten or so years back there was a statement that a military unit on a field exercise gathered information from a host of sources (signal, human, etc.). The information was placed in a computer, and the computer then generated a stratagem based on the military input it received. If this had been a US exercise, it is most likely that discussion of such input would have resulted in a COA.

Shi

Different Chinese and English speaking authors have translated *shi* as energy, power, momentum, and strategic advantage, among other translations. Why should this concept be of any concern? Noted Western Sinologist Roger Ames has called the concept of *shi* "the key and defining idea in Sun-Tzu: *The Art of War*." Ames translates the term as "strategic advantage." He notes that *shi* "is a level of discourse through

which one actively determines and cultivates the leverage and influence of one's particular place." Retired Chinese general Tao Hanzhang defines *shi* in a similar manner, noting that it is "the strategically advantageous posture before a battle that enables it to have a flexible, mobile, and changeable position during a campaign." What follows is an examination of several Chinese authors who have defined or discussed the *shi* concept. US discussions and definitions are listed in Appendix One.

Shi is the title of Chapter Five of Sun Tzu's Art of War. The examination of shi that follows is based on different linguists' translations of the concept in The Art of War, on the views of experts on the topic, and on definitions from dictionaries or philosophical compendiums. The examination allows one to consider several linguistic variants of the term. The concept is also examined from the contemporary context of what might be expected from the "strategic configuration of electrons" or from one of the other definitions of shi.

Shi¹³⁵ is a Chinese term that has eluded a precise Western definition. It is a concept familiar to the Chinese and foreign students of Chinese philosophy, such as US sinologists. But it is a concept hardly ever encountered by others not in these categories.

Dr. Michael Pillsbury, one of America's foremost authorities on the PLA and author of several comprehensive works on Chinese military thought, has studied PLA materials to uncover their observations on *shi*. His observations follow:

• *Shi* assesses your side's potential, the enemy side's potential, weather, and geography to identify the moment in a campaign when an advantage can be gained over an opponent. *Shi* is a certain moment in

¹³⁴ Tao Hanzhang, Sun Tzu's Art of War: The Modern Chinese Interpretation, Sterling Innovation, 2007, p. 124.

¹³³ The Book of War, The Modern Library, New York, 2000, p. 50.

¹³⁵ Also spelled "*shih*"; the spelling of *shi* or *shih* used in the following pages is dependent on the spelling used by individual authors who are quoted.

- the campaign when you could take the advantage from the enemy (He Diging, Campaign Course Materials, AMS 2001);
- Shi is created in five ways, through maneuver, posture, position, psychology, and calculations. The timing and speed of creating shi in war has changed under conditions of high-tech warfare (Yue Lan, "High Tech Warfare and Contemporary Military Philosophy," *Liberation Army Daily Press*, 2000)
- Shi is the moment when it becomes apparent one side can win the war (Guo Shengwei, Deng Xiaoping's Military Stratagems, Central Party School, 2000)
- Shi according to the Tang founder used psycho-shi, geo-shi, and shaping-shi (Zhang Wenru, China's Strategic Culture, Beijing University Press, 1997);
- and shi can be created with stratagems (Li Bingyan, Stratagem and Transformation, 2004). 136

There are a number of other Chinese sources that define *shi*:

- The Chinese book Campaign Stratagems defines shi situation, status, and state of affairs; the combination of the friendly situation, enemy situation, and the environment; trend in affairs; the integrated situation that has an impact on the effective performance of military strength; sum of all factors impacting the performance of the operational efficiency of both sides; general confrontational situation; hub of increase and decrease in operational efficiencies of two sides; the key factor determining the rise and fall of operational efficiency. 137
- The Chinese Encyclopedia of Philosophical Terms explains shi as "availing oneself of advantage to gain

¹³⁶ This information was taken from a slide presentation that Dr. Pillsbury sent to this author.

¹³⁷ Zhang Xing Ye and Zhang Zhan Li, *Campaign Stratagems*, National Defense University, 2002.

- control, a natural interest." Shi "changes with each passing day and cannot return to its former self." 138
- Chapter Five (*Shi*) in Tao's translation of *The Art of War* translates *shi* as "posture of the army." ¹³⁹
- At the 6th International Symposium on Sun Tzu's *Art of War* Li Rulong explained *shi* as "acting according to the situation." "Planning and concocting power" and "selecting men and employing strategic power" have always been important subjects for study by strategists throughout the ages. "Power" is actually a kind of potential energy; once the external condition is provided, this energy will demonstrate a mighty power and become a force. Such an understanding can be allied to all fields of social practice including military affairs. ¹⁴⁰
- The Xinhua Zidian (New China Dictionary) defined shi as power, authority, might (abuse one's power to take advantage of others); a condition that is manifested, appearance (pertaining to the natural world [physical features of a place, terrain, precipitous mountains], pertaining to movement [posture, gesture, sign, signal], pertaining to politics, military affairs, or other areas [current situation, trend of the times, the way things are going, general trend, take advantage of circumstances to attack a fleeting enemy]). 141

Thus, the complexity of the term is clearly identifiable from the definitions. Posture of the army, strategic advantage, strategic configuration of power, the alignment of forces, and availing oneself of advantage to gain control were all used to define *shi*. The Chinese mind, it appears, has been taught by its philosophical and cultural base to first

¹³⁸ Feng Qi, *Chinese Encyclopedia of Philosophical Terms*, Revised Edition, Shanghai Lexicographical Publishing House, 2001, p. 1355.

¹³⁹Tao, p. 44.

¹⁴⁰ Li Rulong, "A Brief Discussion of the 'Shi' Strategy," The 6th International Symposium on Sun Zi's *Art of War*, selected paper abstracts, pp. 71-72.

¹⁴¹ New China Dictionary, 1971, p. 395. Mr. Bart Zobel provided the translation of the definition.

locate the disposition or setting of reality before focusing on a solution to an actual problem at hand.

As an example of this conceptualization, The Geography of Thought (written by a US author) describes a simple experiment where people of Western and Oriental background look at fish in an aquarium and describe what they see. The first response from an Oriental's viewpoint was a description of the environment ("It looked like a pond") whereas the Western mind was three times as likely to first mention the type of fish they saw. 142 This indicates that the Oriental mind is taking in the big picture, the configuration or posture of things. Likewise, this propensity to examine a broader disposition appears to be reflected in Chinese theorists' descriptions and definitions of strategy, which are broader than US descriptions of the concept. Whereas US strategists focus on ideas or ends, ways, and means, Chinese strategists tend to first look at objective factors existing in the world today with reference to a particular country (level of science and technology, amount spent on defense, location of forces, geo-political setting, etc.) in a comprehensive manner. They then examine how to subjectively utilize, influence, or manipulate these circumstances. The Chinese examination of strategic resources and maritime passages may well utilize the same concepts.

Whether or not *shi*, as Ames contends, is the key and defining idea of the *Art of War* is hard to ascertain. It is mentioned in chapters one, five, six, and ten of Sun Tzu's work. But one thing that is certain for anyone reading this classic is that Sun Tzu often repeated the concept of "attaining an advantage." It is repeated throughout the book. Sun Tzu used the advantage concept to determine whether or not to act and, as the discussion of the concept indicates, it is closely related to *shi*.

Conclusions

Throughout this chapter and later in this book, the three items of objective reality-subjective thought (from Chapter One), stratagems, and *shi* (from this chapter) are repeated often. The reason is simply to underscore how they are utilized in PLA literature, and to help our understanding of the components of the PLA's military strategy.

¹⁴² Richard E. Nisbett, *The Geography of Thought*, Free Press, 2003, p. 90.

With regard to stratagems, they can be generated by machines as well as the human mind. While US staff members try to find courses of action, PLA decision makers are examining stratagems. Machine-made stratagems must still be examined by PLA commanders, however, to ensure that their wisdom is based on knowledge and not simply a situation. Information confrontation stratagems are being applied as well. It is equally possible to fool an opponent on a computer as it is in reality. Even in the information age, the ability to confuse and trick an adversary is still a main way of attacking without fighting. Creativity must be given full play. Traditional thought must be combined with innovation as well.

Working to attain a strategic advantage or *shi* is still a goal. It can be created through the use of stratagems or through maneuver, posture, position, psychology, and calculations. The timing and speed of creating *shi* in war has changed under conditions of high-tech warfare and must be recalibrated according to the weaponry and equipment utilized. It certainly appears that *shi* can remain flexible, as Sun Tzu required.

CHAPTER THREE: ARE SUN TZU AND MAO ZEDONG STILL RELEVANT?

Introduction

The attention directed in Chapter One to the work and influence of Karl Marx does not mean Chinese military icons Sun Tzu and Mao Zedong are no longer relevant. Both of these military giants continue to strongly affect Chinese military strategy. They are often quoted in the military press and represent the two other major avenues for pursuing the basic components of Chinese military strategy. For example, retired People's Liberation Army (PLA) Lieutenant General Li Jijun noted in 2006 that "the two peaks of China's military strategic thinking are Sun Tzu's *Art of War* and Mao Zedong's military thinking." The purpose of introducing Marx first was to underscore the fact that his impact, which appears huge, is often overlooked due to the cultural presence of the other two.

This chapter will highlight and analyze the contemporary influence of Sun Tzu and Mao on Chinese military strategy. The number of sources cited clearly illustrates that their work remains relevant and important for the conceptualization and application of strategy in China. Their strategic foundation also works in the information age.

Sun Tzu

Sun Tzu's *Art of War* appeared exactly in the center of China's 5,000 year written history of war...Sun Tzu's *Art of War* summarizes the experiences of the war practices from the preceding 2,500 years and has been tested by the war practices of the nearly 2,500 ensuing years. Because of this, Sun Tzu's *Art of War* is regarded as a classic. 144

¹⁴³ Li Jijun, "Military Strategic Thinking and Scientific Decision-making," *China Military Science*, No. 1 2006, pp. 28-38.

Wang Pufeng, "Sun Tzu's *Art of War*: Gem of Chinese Strategic Culture," *China Military Science*, No. 6 2004, pp. 14-16.

Confucius is quoted as having said about cultural proclivities in China that "Using a tolerant and gentle manner when teaching others, and not retaliating when others are rude and unreasonable—in the south, this is what it means to be strong." Further, he noted that "Sleeping with weapons and armor until one's dying day is what is considered to be strong in the north; this is the strength of valiant warriors." During his youth Sun Tzu was raised in the state of Qi in the north. In his middle age he lived in the state of Wu in the south. Thus, he was able to experience both cultures. He benefited from this north-south exposure and became the product of blended wisdom. Perhaps this influenced some of his views, such as "there is strong in the weak, and there is weak in the strong, thus one cannot be emphasized at the other's expense." 146

Authors Wan Fulin and Zhao Li, writing on Sun Tzu in *China Military Science*, note that both atheism and views on the nature of China's materialism at the time influenced Sun Tzu's military thought. Sun Tzu focused on exploring the objective laws of warfare and believed that these laws could be understood. He opposed the use of superstitious methods. Knowledge cannot be obtained from spirits, he believed, nor can it be obtained inductively from experience. Rather, it can be gained only from other men. Sun Tzu's military thought thus possessed simple materialism and a simple dialectic method (advantage and disadvantage, etc.) to solve the constantly changing contradictions in war. ¹⁴⁷

It was always necessary to seek *shi* (or a favorable configuration of power, an advantage) as well. Sun Tzu noted that "If, on the other hand, in the midst of difficulties we are always ready to seize an advantage, we may extricate ourselves from misfortune." Perhaps this concept, along with his focus on stratagems, is Sun Tzu's greatest contribution to Chinese strategic thought. Obviously he did not have access to Marx's thinking. It appears, however, that Chinese theorists today try to relate his work to Marx's. For example, discussions about the dialectic, materialist thought, and objective laws of warfare seem to

¹⁴⁵ Wan Fulin and Zhao Li, "Comparative Study of 'Sun Tzu' and 'On War," *China Military Science*, No.1 2001, pp. 34-40.

¹⁴⁶ Ibid.

¹⁴⁷ Ibid.

¹⁴⁸ Ibid.

infiltrate modern day explanations of Sun Tzu's thinking. It is as if it is important to impose the Marxist template on Sun Tzu's thought. Doing so gives further justification to the Communist Party's reliance on Marx as they can this site some of his basic ideas in Sun Tzu's time.

Since the social forces of production were not highly developed, Sun Tzu often used natural world analogies to explain the laws of war according to Wan and Zhao. Observations of nature were all he had for context. For example, he explained flexibility in warfare by using the analogy of comparing military tactics to water, which avoids obstacles as it flows from high places to low places. It shapes its course based on the ground over which it flows. Just as water has no constant shape, so in warfare there are no constant conditions. ¹⁴⁹

Sun Tzu's writing style was compact. In the *Art of War* there are 6070 words, which is consistent "with China's ancient military culture emphasizing the macroscopic, emphasizing the comprehensive, and its tradition of being good at extracting the purifying matters from complex phenomena." He focused on overall continuity and section-by-section responses. Points explained in one chapter of the *Art of War* are brought back for further development in another. Perhaps more important to Wan and Zhao, Sun Tzu's strategic thought is still able to enlighten our thinking in regard to the revolution in military affairs, the strategies and tactics of high-technology warfare, ¹⁵¹ and cyber war.

Art of War Symposiums

One of the many ways in which Sun Tzu's legacy has been maintained and even raised in China is through the holding of *Art of War* symposiums. In 1989 the first international symposium on Sun Tzu's *Art of War* was held there, one result of which was the establishment of the China Research Society of Sun Tzu's *Art of War*. Over the past 20 years the development, innovation, and popularization of Sun Tzu's culture has actually grown. Additional symposiums have been conducted, most with foreign guests present. Huimin County, thought to be the hometown

150 Ibid.

¹⁴⁹ Ibid.

¹⁵¹ Ibid.

of Sun Tzu (also called Sun Wu or Sun Zi), constructed a replica of Sun Tzu's former residence and established the Sun Tzu Culture Foundation. Thus, a complete system for the study of Sun Tzu's culture was established. As a result, Sun Tzu's thoughts have been examined and reexamined, with many of his principles continuing to influence military assessments up to the present day.

Many standard military Chinese texts, such as *The Science of Military Strategy*, cite the *Art of War* in some detail. The remainder of this section will examine just a few of the many articles that utilized the *Art of War's* pithy maxims on warfare over the past ten year. Some of the material used is from the actual *Art of War* symposiums, while other material is from the open press.

At the 6th International Symposium on the Art of War at Shenzhen in 2004, Chai Yuqiu, from the Nanjing Army Command Academy, noted that Sun Tzu was able to produce materialistic and dialectic thought in his work. 152 Sun Tzu could explain the strategies for gaining the upper hand, using direct and indirect methods, advantages and disadvantages, night and day, vacuity and substance, and work and rest. In short, he was a grand strategist without parallel in history. Chai notes there are 20 lines of political strategy, 80 lines of military strategy, and 20 lines of strategies for economics and diplomacy in the Art of War. More importantly, even though the book was written 2500 years ago, it still has value based on its strategic thought, even in the information age. For example, "breaking the enemy's resistance without fighting" is the ultimate result of informationized reconnaissance, using information instead of conflict to achieve success. Or there is the concept of knowing how to attain victory, that is, the need to fully understand information's value as a force multiplier (in weaponry, command and control setups, etc.) in order to deliver victory. Whoever controls the power to gain, use, and control information is the side that is more up to the task of carrying out analysis, decision making, and coordination of effort. Cyber espionage could enable these strategic thoughts to come to fruition in the

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¹⁵² Chai Yuqiu, "Sun Tzu's Strategic Thought and its Inspiration for Informationized Warfare," Dissertation from the Sixth International Seminar on Sun Tzu's *Art of War*, November 2004, Shenzhen, China.

information age, where it is used to "know the enemy's plans and the likelihood of their success." 153

Chai discussed several other aspects of the Art of War. First, he stated that direct and indirect methods of warfare produce a moving circle where one never comes to an end, due to the inexhaustibility of their potential combinations. Second, he noted that quick decisions are required to avoid strain on the force, where victory is the object and not long campaigns. Third, the use of modifications and changes are important. One must not be constrained by conventional methods, but must remain flexible. In the information age flexibility is required to adapt to the changes associated with fast-moving situations. Finally, the study of psychological factors remains important. The art of studying moods is important, that is, looking for disorder and chaos in an enemy force. Psychological factors imply the use of deception as well.

Chai notes that the Art of War "amassed the quintessence of nearly all the brilliant strategy of that time, that it refined and summarized it to a high degree, brought to it original creativity, and created a systematic and profound theory of strategy." ¹⁵⁴ Sun Tzu's "cunning path of the warrior provides valuable wisdom and inspiration for us in fighting and winning informationized wars of the future" and his concept of "gaining the upper hand through strategy" remain as key tenets for modern day commanders to follow. 155 Chai concludes:

Therefore, there is only one key that determines success or failure, and that is the use of strategy, and then we can win victory without fighting, be all-conquering, and be ever-victorious. We need only understand, master, and use Sun Tzu thought, which serves as a great achievement in strategy. We have reason to believe that Sun Tzu's strategic thought can certainly play an even greater role in the present informationization era. 156

154 Ibid.

¹⁵³ Ibid.

¹⁵⁵ Ibid.

¹⁵⁶ Ibid.

The Journal China Military Science

In 2004 Major General Wang Pufeng, a former Director of the Strategy Department of the Academy of Military Science in Beijing, discussed several issues in the *Art of War*. Calling the work the "gem of Chinese strategic culture," Wang went on to describe how the work can be summed up in four words: *Dao*, strength, caution, and victory. For each of these categories, Wang added a detailed explanation. ¹⁵⁷

Dao is not only virtue, but also implies sober and calm politics. If politics are enlightened and honest, then a general will be able to master the initiative. Dao is the weakest of the four elements of strategic culture, in Wang's assessment. Strength implies "ready forces," where forces are meant to mean national power and military power. Here the explanation is superb. Ready forces extend beyond the battlefield and include a country's economy, financial resources, and the issues of victory and defeat. These elements are similar to those that make up the Chinese concept of comprehensive national power (CNP) (see Chapter Eight for a CNP explanation). Engaging in war without strengthening these specific forces invites unintended consequences. Force must be cultivated, planned, and wielded. Planning principles include measurement, estimation of quantity, calculations, balancing of chances, and victory. The capability must be present to overpower an enemy. 158 China is developing a combat power generation model (see Chapter Eleven) to ensure that this aspect of "ready forces" is available. Wang completes this section noting, "So Sun Tzu speaks of strategy, but strategy cannot be separated from force, that is a clever, rational use of force to unleash the maximum effectiveness of the force." ¹⁵⁹

Cautious warfare is the third element of Wang's keys to understanding the *Art of War*. Cautious warfare is composed of several key points, to include cautious planning that can never be neglected, putting one's force beyond the possibility of defeat, creating situations where victory is inevitable (which reminds one of the *shi* concept), and fully understanding the situation. Wang's last element, victory, is the

¹⁵⁷ Wang.

¹⁵⁸ Ibid.

¹⁵⁹ Ibid.

destination of the study of strategic culture. The victorious strategist must seek battle only after victory has already been won. This requires preparations that are comprehensive (politics, economics, diplomacy, military affairs, material, spiritual, etc., which are all components of CNP). It is easy to conquer an enemy if it is not totally prepared. Friendly forces must establish a standard of courage that all members of the force must reach, even if men must be roused to anger to ensure that bravery prevails. Wisdom is designated as the top requirement for choosing generals capable of attaining victory. Wisdom enables commanders to size up situations, create and use energy, keep forces united, use indirect methods to control the enemy, and pay attention to the use of varying tactical methods (such as subjective and objective factors, many and few, concentrated and divided, real and fake, and direct and indirect). Total victory must be achieved, and this includes doing the following among the enemy population: practicing politics, restoring the economy, appeasing the masses, stabilizing life, eliminating remaining enemies, boosting morale, and other aspects of post-victory rehabilitation work. 160

Can this "gem of culture" be applied to the information age? Based on Wang's comments it appears so. The following citation, taken directly from his article, could be applied to China's extensive cyber reconnaissance efforts against the US over the past several years, whereby they could obtain a strategic advantage in case of a future cyber conflict:

Sun Tzu also mentioned 'discover his plans and the likelihood of their success...learn the principle of his activity or inactivity...find out his vulnerable spots...know where strength is superabundant and where it is deficient,' 'know the place and the time of the coming battle,' 'acquaint ourselves with the designs of our neighbors,' 'know the art of war of varying his plans,' etc. ¹⁶¹

¹⁶⁰ Ibid.

¹⁶¹d. 161 Ibid.

Also in 2004 Major General Yao Youzhi, one of two editors of the PLA's *The Science of Military Strategy*, a significant work on the topic, and a former Chairman of the China Research Society of Sun Tzu's *Art of War*, wrote on the contemporary value of Sun Tzu's work. Along with co-author Ma Debao, a post-doctoral researcher at the Chinese Academy of Military Sciences, the *Art of War* is examined from the vantage point of its focus on creating a military cultural tradition for the PLA. The authors believe Sun Tzu stressed winning politically, winning peace, and winning people over in order to achieve total victory, a strategic cultural tradition that in their opinion has been consistent for thousands of years. Sun Tzu believed that China must oppose unjust wars, and this has become a consensus point among China's most important past strategists. 163

Yao and Ma believe the PLA tradition focuses on formulating strategies in areas such as cognition, thinking, and psychology. Strategy must precede actions, permeate them later, and be implemented at every level through the use of ingenuity to gain the upper hand in confrontations. Such activities minimize the destructive nature of war. A real analysis must be made of gains and losses and advantages and disadvantages. ¹⁶⁴ Offensive defense must be reflected in military strategy, since offense is inevitably found in active defense. At the strategic level Sun Tzu advocated looking at all aspects in order to gain an advantage over the enemy, even treating captured soldiers kindly.

One other key to Yao and Ma's work was their stress on highlighting the need to flexibly apply strategy and tactics. In warfare there are no constant conditions, so flexibility is a must. Commanders need to seek advantage and find a path through battles of wit based on strategy, especially since warfare is essentially a contest of intellect. Flexibility is based on the objective situation before commanders. Not everything, however, rests on battlefield flexibility. Good planning based on calculations made in the "temple" (today's planning section) ahead of

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¹⁶² Yao Youzhi and Ma Debao, "Sun Tzu's *Art of War* and Mainstream Contemporary Chinese Theories of War," *China Military Science*, No. 6 2004, pp. 9-14.

¹⁶³ Ibid.

¹⁶⁴ Ibid.

battle determines victory and defeat. In other words, scientific planning must be joined with flexibility in meeting contingencies. ¹⁶⁵

Other Uses of the Art of War

Within China's military community of journalists the writing of Sun Tzu is often used to support concepts. The following list is representative of articles from 2007 to 2013 that cited Sun Tzu or quoted directly from the *Art of War*. The overall gist of an article is stated first and then in the parentheses is the Sun Tzu quote to support it:

- border defense (maintain full preparations and ready forces)
- electromagnetic training (know your enemy)
- modeling (temple calculations
- think tanks (planning)
- exercises (use of surprise)
- long range projection (speed is precious in war)
- cooperation with another nation (be wary of one's own weaknesses; clever combatant looks to the effect of combined energy)
- education (strategy is the Tao of survival and its study cannot be neglected)
- logistics (army without reserves will succumb; army without its baggage train is lost)
- culture (military action is driven by interest)
- Spratly Islands (use of stratagems)
- camouflage (skilled general in defense hides in recesses of the earth)
- mathematics (make calculations in advance)
- transportation (in war there are a thousand swift and heavy chariots)
- South China Sea (one must understand the overall situation)
- Scarborough Reef (know when and how to fight)

¹⁶⁵ Ibid.

- strategic transparency (all warfare is based on deception)
- invisible war (win without fighting)
- new methods of war (war is a matter of life and death)
- and war is a last option (mobilization is vital to survival).

In each case Sun Tzu was identified by name with the proposed methodology, indicating that his work remains relevant and is probably the bedrock of the PLA's strategic culture.

Civilian authors from institutes across China also use Sun Tzu's work to describe ways to handle the state of affairs in regard to international relations. For example, with regard to taking advantage of opportunity, it is necessary to do things by following growth or decline, taking advantage of circumstances, or following the developmental tendencies of things.

Eastern and Western Translations of the Art of War

There have been many translations of the *Art of War*. There is great difficulty not only in translating and capturing meaning, but also in trying to understand what it all means in context. To demonstrate the difficulty of translation, one need only look at the title of Chapter Five, *Shi*, in the *Art of War*. The following definitions were provided for the chapter, beginning with Western versions: Samuel B. Griffith, 1963, energy; Roger Ames, 1993, strategic advantage; Ralph D. Sawyer, 1994, strategic military power; Gary Gagliardi, 1999, momentum; Denma translation Group, 2001, used the Chinese word *shih* instead of any English equivalent; and Victor H. Mair, 2007, configuration. That is, not one of these translations match, and each author is a recognized expert in the field. From China, two translations into English reveal the following: General Tao Hanzhang, 1993, posture of the army, and Lin Wusun, 1999, momentum. Thus, getting meaning and context correct is a difficult task. ¹⁶⁶

¹⁶⁶Since the purpose of this work is to examine what Chinese authors are saying about Sun Tzu's writings, only Tao and Lin's work will be summarized, and then only what they have to say about strategic considerations, the focus of this work.

Tao notes in a discussion of strategic considerations that Sun Tzu wrote "What is of supreme importance in war is to upset the enemy's strategic plans." This required an assessment of the seven elements:

- Which of the two sovereigns is more sagacious?
- Which of the two commanders is wiser and more able?
- Which of the two armies has the advantages of nature and the terrain?
- On which side is discipline more rigorously enforced?
- Which of the two armies is stronger?
- Which side has the better trained officers and men?
- Which side administers rewards and punishments in a more enlightened manner?¹⁶⁷

Tao notes that a comprehensive analysis enables a forecast of who will prevail in battle through an analysis of fighting capacity and the advantages and disadvantages of each side. It is much more difficult to develop a successful strategy than a plan for a battle, as the former requires a comprehensive assessment of the situation. Tao adds that these conditions are, of course, insufficient for a consideration of modern war, implying that other factors are now under consideration in the PLA. Tao states that, contextually, Sun Tzu was only interested in quick and decisive battles, since logistics and transport could not be sustained for any period of time. In his discussion of *shih* or posture (according to the English translation of Tao's book), "Sun Tzu did not mean the formation or deployment of an army during a battle, but the strategically advantageous posture before a battle that enables it to have a flexible, mobile, and changeable position during a campaign." 169

The Lin Wusun translation into English of the *Art of War* was first edited and translated into modern Chinese by Wu Rusong and Wu Xianlin. Unlike Tao, these editors did not write separate commentary on

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¹⁶⁷ Tao Hanzhang, *The Art of War*, Wordsworth Reference, 1993, p. 20.

¹⁶⁸ Ibid.

¹⁶⁹ Ibid., p. 36.

strategy or *shi* or other concepts. Rather they simply wrote a modest five page introduction. There were a few paragraphs that discussed strategy. The editors noted that the book deals with the science of strategy and that two legacies of Chinese military art stand out. The first is that circumspection when handling matters of war is important, and the second is that the exploration of the laws governing warfare is developed through "cognition of the way (*dao*)" of war. Nothing else was added on the topic of strategy.

Mao Zedong

Samuel Griffith, writing in his translated version of Sun Tzu's *Art of War*, and Dr. Henry Kissinger, in his work *On China*, both ascribe to the fact that Sun Tzu influenced Mao's thinking. Griffith basically asserts that Mao paraphrased many of Sun Tzu's maxims, while Kissinger writes that Mao was a Sun Tzu student. Most Westerners appear to agree that Mao was influenced by Sun Tzu.

However, since only Chinese sources are being used in this book, we will proceed to Mao's actual writings. He does quote Sun Tzu at times in his work "Problems of Strategy in China's Revolutionary War," noting for example that to "Know the enemy and know yourself, and you can fight a hundred battles with no danger of defeat." Mao, of course, was born after Marx lived, had a chance to read his philosophical works, and became a student of his thinking. Thus both men strongly influenced Mao's approach to warfare.

Problems of Strategy in China's Revolutionary War

This work by Mao was published in December 1936. With regard to Marx, in this work Mao quotes Lenin, who said that "the most essential thing in Marxism, the living soul of Marxism, is the concrete analysis of concrete conditions." Again, this refers to an understanding of objective reality. It is said he wrote it to criticize the military mistakes of the new "Left" opportunist line.

Wu Rusong and Wu Xianlin, Sunzi: The Art of War; Sun Bin: The Art of War,
 Foreign Languages Press, Hunan People's Publishing House, 1999, pp. 23-24.
 Tao, p. 36.

Mao begins Chapter One, Section Three of this work with the statement that "strategy is the study of the laws of a war situation as a whole." If there are serious mistakes in evaluating the situation as a whole, then war is sure to be lost. As in chess, so in war, one careless move that is decisive for the whole situation can lose the whole game. One must concern himself with the entire problem of the grouping of units and formations, with campaign relationships, with operational stages, and with friendly activities as a whole versus enemy activities as a whole. Problems associated with strategy include giving proper consideration to both the special features contained in the general situation and to the relationship between the front and rear. 173

In the section titled, "Our Strategy and Tactics Ensuing from these Characteristics," Mao stated it was necessary to correctly settle the following matters of principle, among others: determining the correct strategic orientation, upholding the strategy of protracted war and campaigns of quick decision, and opposing the strategy of striking with two "fists" in two directions at the same time (and upholding the strategy of striking with one "fist" in one direction at a time). 174

In the section, "The Strategic Defensive," he discussed active and passive defense, preparations for combating encirclement and suppression campaigns, strategic retreat, strategic counter-offensives, the start of the counter-offensive, troop concentration, mobile warfare, war of quick decision, and war of annihilation. Interestingly, he notes that active defense is also known as offensive defense or defense through decisive engagements. In this sense, Chinese discussions of active defense do not mean what they purport to be. Strategically the PLA could be in the defense, but as soon as campaigns and battles are initiated, their forces acquire an offensive posture. Mao added a Marxian comment as well, noting that the ideologue stated that "once an armed uprising is started there must not be a moment's pause in the attack." 175

¹⁷² Mao Zedong, "Problems of Strategy in China's Revolutionary War," December 1936, downloaded from http://www.marxists.org/reference/archive/mao/selected-works/volume-1/mswv1_12.htm.

¹⁷³ Ibid.

¹⁷⁴ Ibid.

¹⁷⁵ Ibid.

Two items requiring further explanation are the retreat and the counter offensive. Strategic retreat is defined as "a planned strategic step taken by an inferior force for the purpose of conserving its strength and biding its time to defeat the enemy, when it finds itself confronted with a superior force whose offensive it is unable to smash quickly." The strategic counter offensive is defined as "the situation created during the stage of our strategic retreat, a situation which is favorable to us, unfavorable to the enemy, and different from that at the beginning of his offensive." The sole task of the counter offensive is to engage the enemy in a decisive battle in order to settle the question as to which army is the victor. 178

Quotations from Chairman Mao Zedong

There are numerous quotations from Mao's Little Red Book that demonstrate a reliance on Marxism, but only a few are noted here. Perhaps of greatest interest for this section is Mao's description of the attainment of victory or defeat. He notes that, in addition to being determined by military, political, economic, and natural conditions, victory or defeat is also determined by "each side's subjective ability in directing the war. In his endeavor to win a war, a military strategist cannot overstep the limitations imposed by material conditions." ¹⁷⁹ A strategist's stage of action is built on objective material conditions. Thus, Mao appears to follow Marx's objective reality, subjective initiative paradigm in assessing chances of victory. This thought process must be followed by communists, since the Little Red Book notes that "It is revisionism to negate the basic principles of Marxism and to negate its universal truth." All power belongs to the armed forces since "According to the Marxist theory of the state, the army is the chief component of state power."181

¹⁷⁶ Ibid.

¹⁷⁷ Ibid.

¹⁷⁹ Quotations from Chairman Mao Zedong, Beijing: Foreign Languages Press, 1996, pp. 175, 177. ¹⁸⁰ Ibid., p. 39.

¹⁸¹ Ibid., p. 123.

The Science of Military Strategy

This book described several aspects of Mao's strategic thought, noting at the beginning that Mao's theory reflects Chinese Communist strategic thought in coping with the overall situation of war and art of directing strategy. It represents the practical application and reflection of Marxist military theory in the Chinese revolutionary war.

Mao's theory is a China-styled Marxist military theory that is deeply rooted in Chinese traditional (ancient) strategic culture. Three elements are stressed: Mao's Marxist view of strategy; the strategic guiding principles of People's War; and the strategic thinking of active defense. ¹⁸²

Peng and Yao list several parts of Mao's Marxist view of strategy:

- Strategy involves the laws of war as a whole
- Politics is the soul of military strategy
- Strategy should be formulated with a view to the characteristics and development of war
- The planning and implementation of military strategy are the contest between the subjective ability of commanders of both sides to direct the war. 183

Each of these items will be discussed in turn.

The laws of war involve taking into consideration a series of relationships. These include relations between enemy and friends, various campaigns or stages of fighting, various military forces, front and rear, various operations, various directions of operations, various branches of arms, and various forms of operations, among others. Mao noted that "The task of the science of strategy is to study those laws for

¹⁸³ Ibid., pp. 104-107.

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¹⁸² Peng Guangqian and Yao Youzhi, editors, *The Science of Military Strategy*, Beijing: Military Science Publishing House, 2005, p. 104.

directing a war that govern the war situation as a whole."¹⁸⁴ With regard to politics as the soul of military strategy, military objectives are subordinate to political objectives. Military strategy includes military objectives of war and political objectives, and it must be coordinated with political mobilization measures and political policy.¹⁸⁵

With regard to the formulation of strategy, one must be able to analyze the factors and conditions of both sides of the war, comparing and synthesizing these factors, and then, finding the specifics of the war, formulate a military strategy to direct the war. Finally, with regard to the subjective ability of commander's, the editors noted Mao's saying that "war is a contest in subjective ability between the commanders of the opposing armies in their struggle for superiority and for resources." Leaving aside any contrast in objective material conditions, the "victor will necessarily owe his success to correct subjective direction and the vanquished his defeat to wrong direction." The subjective abilities of the initiative, flexibility, and planning of a war must be correctly handled. Thus it appears Marx had quite an impact on the manner in which Mao formulated strategy.

Editors Peng Guangqian and Yao Youzhi then move on to People's War and active defense issues. For People's War, the following topics were highlighted as important components of the concept:

- Preserving ourselves and annihilating the enemy is the fundamental principle of military strategy
- Founding base areas and creating battlefields are strategic tasks (involves creating the conditions for the masses to take part in revolutionary war)
- Changing in a timely fashion the main forms of operations in accordance with the development and

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¹⁸⁴ Ibid., p. 104.

¹⁸⁵ Ibid., pp. 105-106.

¹⁸⁶ Ibid., pp. 106-107.

¹⁸⁷ Ibid., p. 107.

¹⁸⁸ Ibid.

- changes in war conditions (objective reasons being changing contrasts in strength)
- Fighting no battle unprepared and formulating strategies based on worst case scenarios (to deal with sudden onset of war or to have to implement new strategic tasks)
- Fighting in our way, while you fight in yours; we fight
 if there is a chance we can win, if not we will move
 (we need to control the enemy and not be controlled
 by him)
- Concentrating superior forces to annihilate the enemy forces one by one (continue to create partial superiority and annihilate the enemy one by one)
- Annihilating the enemy's effective strength is the main task, regardless of the gain or loss of one or two cities or places
- Being prudent in the first battle and fighting the decisive battle to our advantage (initial fighting usually has strategic significance and influences the entire war; for the defense the first battle in a counterattack is significant; a general plan for future battles must be developed along with the counterattack)¹⁸⁹

A few items from this list require further elaboration. The issue of timely changing the forms of operations is important. Peng and Yao describe Mao's actions as changing from guerilla to mobile war, from guerilla to maneuver war, and from maneuver to positional war during various conflicts. This is an interesting thought for today. Commanders should be considering now how forms of conflict might change if the US becomes involved again in a skirmish overseas and how they would confront enemy commanders who use Mao's thoughts as a guide. How will US leaders adjust to similar changes on the part of their

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¹⁸⁹ Ibid., pp. 107-113.

¹⁹⁰ Ibid., p. 109.

enemy, and how could our leaders adjust operations to confuse enemy leaders?

Another important issue is the concept of fighting the decisive battle to one's advantage. They note that in the stage of retreat it is necessary to see ahead to the stage of a counter offensive. The latter requires looking ahead to the offensive, and the offensive requires looking ahead to the stage of retreat again. ¹⁹¹ In this way friendly forces will only be fighting battles that are advantageous to them.

The final item is the strategic thought of active defense. Mao noted that "Active defense is also known as offensive defense, or defense thorough decisive engagement. Passive defense is also known as purely defensive defense, or pure defense...the only real defense is active defense, defense for the purpose of counter-attacking and taking the offensive." 192 Mao believed one could be defensive in strategy but offensive in campaigns and battles. The goal was to turn an opponent's strategic exterior and offensive operations into interior and defensive operations in campaigns and battles. For friendly forces this meant turning strategic interior and defensive operations into exterior and offensive operations in campaigns and battles. This requires the handling of the relationship between protracted war and a war of quick decision. The latter is required in campaigns and battles. This also requires making full preparations, seizing opportune moments, concentrating superior strength, encircling and outflanking an opponent, maintaining good position, and attacking the adversary. 193

Conclusions

The mixture of Sun Tzu, Marx, and Mao's thinking is reflected in the strategic thought of the PLA today. What is of interest is how PLA theoreticians (and the Communist Party) work in Marx in their descriptions of Sun Tzu's work. They find ways to apply Marxian templates to Art of War dictums, even though Sun Tzu lived a few

¹⁹¹ Ibid., p. 113. ¹⁹² Ibid., p. 114.

¹⁹³ Ibid., p. 115.

thousand years before Marx. The reason is apparent—to offer more proof of the relative infinite truth discovered by Marx that was inherently a part of China's heritage.

From Sun Tzu the concepts of stratagems, preparations, seeking an advantage, use of the offense, and similar topics have been highlighted through the ages. Numerous books and translations have been written and made of his classic *Art of War*. Those who described his value to the PLA in this chapter all agreed that he advocated the use of flexibility in war. Wan and Zhao focused on his ability to integrate varying styles of fighting. Chai looked at his materialist and dialectical approach to warfare. Wang noted that he advocated caution and ready forces. Yao and Ma stressed his contributions to the PLA's strategic culture, as well as his focus on the use of the offensive defense. All of these findings have relationships to the thoughts of Marx. Did Marx imitate Sun Tzu in his writing and now the PLA back-briefs the public that Marx's thoughts can be found in ancient works? Who knows for sure?

The sections on Mao Zedong somewhat agree with the assessments in the last paragraph. In his *Little Red Book* Mao notes that Marxism contains "universal truth." He describes the objective reality and subjective initiative thought process in his work *Problems of Strategy*. Mao often refers to understanding the situation as a whole and includes in the estimate friendly and enemy components. This is somewhat reminiscent of Huang's CNP assessments that are used at the PLA's National Defense University to describe overall strength in various military subsections. Peng and Yao highlight Mao's focus on Marx, his extensive writings on People's War and mobilizing the masses, and the active defense. In the same book, Peng and Yao give Engels credit for the concept of People's War and Marx credit for developing the active defense. In short, from their perspective Mao was very dependent on Marx for his development of several key concepts.

In short, Marxism appears to be the center of gravity that has enabled the current PLA thinking on strategy. Sun Tzu contributed much to enhancing the subjective initiative aspect of Marxism with his numerous stratagems and Mao took the concepts of Marx further with his enhancements of the term flexibility. Together these three men have developed a firm foundation from which Chinese strategic thinking can flourish and succeed.

CHAPTER FOUR: RETIRED PLA OFFICERS DISCUSS MODERN DAY STRATEGY

Introduction

What is interesting about contemporary discussions of strategy is their reliance to this day on the ancient work of Sun Tzu and the more recent works of Marx and Mao. These three individuals continue to influence the conceptual development of the People's Liberation Army's (PLA) strategy, even in the information age.

In light of new technological developments contemporary PLA officers continue to reevaluate strategy and make additions and adjustments to the concept. Among the ancients, science and technology issues were not discussed in much detail. As a result, until several decades ago, Chinese theorists focused on the use of stratagems, flexibility, and wisdom (due to history's stress on these issues) to employ military power. These items are still prevalent in Chinese thought. Meanwhile, Western experts focused on technological issues, the Chinese write, resulting in new weaponry on the battlefield. The PLA has realized the importance of technology to either strongly influence or even drive strategy. Innovation has become an important aspect of strategic thought as well.

This chapter will examine some of the more prominent PLA voices on strategy over the past decade or so. Their analysis indicates that present day PLA strategy is a mix of the old and new, where science and technology is being developed and applied to concepts originally developed by the ancients—and Marx.

Li Jijun

In 1994 Lieutenant General Li Jijun, the Deputy Commandant of the Academy of Military Sciences at the time, wrote on military theory and strategy in a book titled *Military Theory and Conflict*. He stated that the problems the planet would soon face included the rapid dispersion of world power due to the fast development and globalization of science, technology, and economics; that geo-economics would dominate geopolitics; and that high-tech local war would gradually become the leading and more mature form of warfare. With regard to the latter issue,

he noted that competition in the development of comprehensive national power (CNP) would cause changes in strategy, battle methods, guiding theories on tactics, and fighting methods. ¹⁹⁴ These predictions have all transpired to varying degrees.

Li then notes that the new strategic situation will require new strategic thinking. The "new objective reality" requires new military theory. Thus, Li uses Marxist language to assess the new strategic period. He defines grand strategy as "the art and science of utilizing and strengthening the comprehensive power of a nation to realize long-term political goals. The philosophical thinking of the art of war is military dialectics, or military philosophy." So the CNP concept is referenced as well.

Li adds that safeguarding national interests and the integrity of national territory and sovereignty are the start point and goal for the study of strategy. The focal point of strategic study is not only national interests, however, but also the interests of the Party and socialism in general. Finally, he cites the works of both Marx and Mao by name as those who possess the methodology for moving forward:

We should also master the correct theory of knowledge and methodology. The Marxist theory of knowledge and methodology is the essence of the works by Marx and Engels. It is a theoretical system of science and consistency. The statement by Engels, that technology determines tactics and economics is the material foundation of war, still holds true today...Mao Zedong, a leader, statesman, and military strategist, was able to combine military practice and military theory at the highest level. ¹⁹⁶

¹⁹⁴ Michael Pillsbury, editor, "Notes on Military Theory and Military Strategy," by Li Jijun, in *Chinese Views of Future Warfare*, National Defense University Press, Washington DC, 1997, pp. 222-224.

¹⁹⁵ Ibid., p. 224.

¹⁹⁶ Ibid., p. 229.

Li ends noting that Marx's, Mao's, and Deng Xiaoping's thoughts have enabled the PLA to master the essential points in the study of the science of strategy. However, times have changed, and now the methodology of cause and effect analysis, statistical analysis, and systems analysis need to be studied as well.¹⁹⁷ Of interest is that in this particular article on the study of strategy, Sun Tzu was not mentioned.

Peng Guangqian

In 1994 Peng Guangqian was a senior colonel in the PLA when he wrote an article for *China Military Science*. The topic of his work was the strategic thought of Deng Xiaoping. ¹⁹⁸ He later co-edited *The Science of Military Strategy*, a contemporary classic study of strategy, with Major General Yao Youzhi.

Peng states that Deng's strategic thought focused on peace, development, stability, security, and national revitalization. Deng's domestic strategy stressed national economic development over defense development. He apparently had a hand in developing the CNP concept, emphasizing development in agriculture, energy, transportation, science, and education. Marxism continued to be cited as the guiding ideology for the strategic means of development. Deng advocated reform and opening up, and hoped to build socialism with Chinese characteristics. ²⁰⁰

Strategically, Deng emphasized the active defense and called for the practice of people's warfare techniques under modern conditions. He promoted limited warfare under modern high-tech conditions and gave full play to the use of flexible tactics and the necessity to strike at an enemy's weak points. Deng believed that only when CNP was increased and developmental problems solved could China stand up to other nations.²⁰¹

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¹⁹⁷ Ibid., p. 230.

¹⁹⁸ Michael Pillsbury, editor, "Deng Xiaoping's Strategic Thought," by Peng Guangqian, in *Chinese Views of Future Warfare*, National Defense University Press, Washington DC, 1997, p. 3.

¹⁹⁹ Ibid., p. 9.

²⁰⁰ Ibid., pp. 6-7.

²⁰¹ Ibid., p. 8.

Yao Youzhi and Zhao Xide

In 2001 Major General Yao Youzhi, then the Director of the Strategic Research Department of the Academy of Military Science (and a noted author on strategic issues), and Major Zhao Xide, an assistant researcher in the same department, pointed out that strategy is "the guideline for planning and guiding war as a whole" ²⁰² and that the term gradually became more generalized in the mid 1980s. Since then it has been applied to fields beyond military affairs. The terms used to express strategy sometimes contain the meaning of stratagems and schemes, but the basic meaning still refers to the planning and organization of a war.

The locomotive of all army actions remains strategy, and between war and non-warring (military diplomacy, military deterrence, etc.) activities of the military, the focus of military strategy can only be war. Strategy should not be divided into wartime and peacetime strategy, since long-term war planning may then be split up. ²⁰³

Ancient and modern theories of war have three features. First, strategy involves the entire wartime situation. Second, stress is placed on war planning and guidance, and third, strategy is relatively stable. Mao noted that the theory on war and strategy is the backbone of everything. War's outcome depends on the war-guiding abilities of the two warring sides, which is another way to say their strategy. Marx was not mentioned.

The authors argue that strategy today must safeguard China's national interests. Researching the new military revolution, examining new forms of war, and continuing to innovate and open new channels for war preparations and armed forces building must occur as well. The focus must be on winning local wars under modern technological conditions.²⁰⁵

²⁰² Yao Youzhi and Zhao Xide, "The Generalization, Conservation, and Development of 'Strategy'," *China Military Science*, No. 4 2001, pp. 120-127.

²⁰³ Ibid.

²⁰⁴ Ibid.

²⁰⁵ Ibid.

Li Bingyan

Major General Li Bingyan is an expert in the theory and use of stratagems. His work is highly regarded in the PLA. In 2002 Li compared and contrasted Chinese strategic thought with that in the West, pointing out in the process the strengths and weaknesses of the former. He concluded that Easterners have put more emphasis on strategy over the years, while the West has focused more on technology. ²⁰⁶

Li writes that in ancient China strategists were heavily influenced by two publications, the I Ching (Book of Changes) and Sun Tzu's Art of War. Regrettably, in Li's opinion, this led to total emphasis on trickery at the expense of the use of science and technology. Li states that China had been warned in the 1800s of technology's importance to warfare, since Friedrich Engels had noted that the development of weapons and equipment determine changes in the forms of combat. 207 Shouldn't the Chinese have been adjusting their organization, theory, and equipment all along, in concert with this ideological icon's thoughts? Not really, since the PLA didn't come into existence until 1949, when a real focus on Marx's and Engel's thoughts transpired. Li's article sets out to correct this shortcoming. Sun Tzu did, however, lay out the idea of how to pursue the greatest combat power, which is remotely related to Engel's concept. Today's PLA has developed combat power generation models to work toward this goal of greater combat power.

Li writes that it is totally understandable how the focus on strategy came to be, since it was related to the cultural traditions of the Chinese people. The Han Dynasty had classified military work into four categories: military strategy, military terrain, military yin and yang, and military techniques, with strategy representing the main current of military focus. Key factors of strategy were geography, weather, and unity and coordination in the ranks. That is, the belief was that nature served human affairs, such that "the plans of heaven are nothing more than an extension of the plans of men."²⁰⁸ Meanwhile, Western

²⁰⁶ Li Bingyan, "Emphasis on Strategy: Demonstrating the Culture of Eastern Military Studies," *China Military Science*, No. 5 2002, pp. 80-85. ²⁰⁷ Ibid.

²⁰⁸ Ibid.

theoreticians were examining the impact of new technologies on the development of military affairs. Western strategic experts created something new.

Westerners stress "Is it a matter of this or of that?" which is helpful in scientific research. Easterners, on the other hand, tend to stress "What is this like, and what is that like?" or a comprehensive way of thinking that is helpful in understanding societal relationships. Ancient strategists' thinking was based on the doctrine of change found in the I Ching. Sun Tzu and other ancient strategists were all well versed in this doctrine. Stratagems are based on the doctrine of changes. Change enables the use of strategy. Further, the concept of vin and vang stresses achieving overall equilibrium, since in *yin* there is *yang*, and within *yang* there is yin. Mutual inclusion is the "essential motive power for movement and development" and "harmonious coexistence is only assured through mutual constraint." ²⁰⁹ Li states that these are key points of Chinese strategic culture, in which culture is the outcome of relationships between man and nature, the spirit and flesh, and individuals and society. Strategy is the desire to seek advantageous over disadvantageous relationships, along with the employment of wisdom to achieve an objective. In order to win without fighting, coordination must be melded with competition and conflict.²¹⁰

Li added that when calculations are made to determine strategy, the following method was used:

How dangerous or favorable, broad or narrow, etc. the terrain is, make judgments on the use of terrain; based on those judgments about terrain, determine the holding capacity of the battlefield; based on the holding capacity, estimate the number of troops the two sides could commit. Through these repeated calculations, one can select a strategy.²¹¹

²¹⁰ Ibid.

²⁰⁹ Ibid.

²¹¹ Ibid.

Under contemporary conditions, it would be interesting to apply this methodology to cyber terrain and calculate how a goal could be achieved when factors are adjusted for modern conditions.

Li notes that by the time of the Western Han era (206 B.C. to 25 A.D.) the idea of emphasizing officials and not technology had gained the upper hand and became a long-standing element of Chinese culture. Regard for upright officials became important. Emphasis on trickery became the way to conceive of strategy at technology's expense. Today, "modern science and technology must be combined with Eastern strategic thinking if there is to be any hope of winning the future." Long-term force development is important for strategy's expansion in keeping with the times.

Zhang Xing Ye and Zhang Zhan Li

In 2002 Zhang Xing Ye and Zhang Zhan Li edited the book *Campaign Stratagems*. Only one section will be highlighted here (the book has been quoted extensively in Chapter Two), since it demonstrates the PLA's use of the Marxist thought process. In the chapter titled "Campaign Strategy and Objective Conditions," the following is noted:

During the process of strategic formulation, the relationship between objective conditions and strategies, in terms of philosophy, is the relationship between the objective and the subjective. Objective conditions are the first position and strategy is the second position. Correct strategies come out of objective realities and reflect objective practices.²¹⁴

Li Jijun

In 2006 Lieutenant General Li Jijun, mentioned earlier, discussed strategic thinking and decision making. He wrote that a nation's culture is the underlying aspect of strategy, in essence the mother of strategy.

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²¹² Ibid.

²¹³ Ibid.

²¹⁴ Zhang Xing Ye and Zhang Zhan Li, editors, *Campaign Stratagems*, National Defense University Publishing House, 2002.

Strategy serves a state's politics, but strategy also reflects a state's historical culture and traditions. Those who formulate strategy do so "against the background of a specific social, historical, and cultural environment and tradition...therefore, in war direction, understanding the adversary's ideological culture and strategic thinking method is as important as finding out the adversary's military deployment."²¹⁵

Li highlights the importance of Marxist thought, stating that it is the epistemological and methodological foundation of military strategic thought. He advocates practical experience and academic knowledge to improve one's strategic thinking and states that Mao Zedong's military thought was full of Marxist epistemology and methodology. In the aspect of war direction and its outcome, human initiative in winning victories on a certain objective material foundation is stressed. At the same time, a war's outcome is determined by the subjective guidance capabilities of the two sides in war. Strategically

For the weaker side to defeat the stronger adversary, the former must be stronger in campaigns and combat through correct guidance by means of concentrating troops and weapons, misleading the enemy, attacking the enemy beyond its expectations, creating partial superiority, and laying the material foundation for defeating the enemy in a certain part of space and time. ²¹⁶

Friendly forces must continue to conduct reconnaissance against an adversary in order to find out how he conducts activities and to obtain knowledge "about the objective situation [that] not only exists prior to the establishment of the military plan but also exists after the establishment of the military plan." Preparing countermeasures allows friendly forces to resolve contradictions between the subjective guidance plan and the probability of objective changes, and to comprehend the dialectical relationship between strategy (its regularity and certainty) on

²¹⁵ Li Jijun, "Military Strategic Thinking and Scientific Decision-making," *China Military Science*, No. 1 2006, pp. 28-38.

²¹⁶ Ibid.

²¹⁷ Ibid.

the one hand and campaigns and tactics (their irregularity and uncertainty) on the other. The PLA must work hard to catch up with the trend of the new revolution in military affairs, while not negating its own fine traditions and experiences. ²¹⁸

Li writes that military strategy is subject to and serves the general strategy of the state, reflecting its political objectives and security interests, that is, those of the Party and state. Strategic thinking reflects the traditional ideas and ideological features shaped by national sources, the nation's historical development, geographical environment, cultural background, and social system. The dialectical relationship between the strategic goal of the state and war strength is reflected in the fact that the goal is determined based on the availability of the required strength, and strength is built according to the state's goal.²¹⁹

Modern warfare is a contest in comprehensive national strength between two warring sides, where the confrontation extends to the technological, economic. scientific. cultural. domains. Comprehensive environmental, diplomatic and includes the strategic environment, strength, intent, direction, scope, operational objects, deployment, support, and logistics. Developing the proper strategic direction also means developing strategic foresight and preparations. War preparations are the only way to achieve the goal of winning in war or avoiding war. This means that strategic thinking must be countermeasure-oriented thinking, targeting the difficult issues posed by an adversary. 220

However, Li warns against laying too much stress on previous experience, noting that tradition has a dual nature. It is both valuable for its historical wealth and a danger due to its tendency to exert historical inertia. Innovation is required to surpass old models or to incorporate them into modern technologies. That is, the art of war differs from the

²¹⁸ Ibid.

²¹⁹ Ibid.

²²⁰ Ibid.

regular rules of war. The former requires intense mental activity and the negation of fixed models. ²²¹

With regard to the art of war, Li writes that the use of stratagems and surprise involves the use of uncertainties. Using uncertainties causes the adversary to make mistakes. In modern strategy, "such things as 'ambiguous strategy,' 'association without forming alliances,' 'mixing negotiation with fighting,' and keeping the status of 'no war and no peace' all belong to the use of uncertainties in strategy."222 While friendly forces work to limit uncertainties, they should try to create uncertain factors for adversaries to increase their difficulties, which negatively affect their ability to make a correct judgment. Acting in an irregular way without displaying a fixed movement direction causes uncertainty. The use of uncertainties "is a conscious act of using stratagems."223 For example, the concept, "The best policy is to gain victory by means of strategy," refers to employing "stratagems comprehensively by political, economic, cultural, and diplomatic means to resolve disputes in the early stages before contradictions of the antagonistic sides are intensified.",224

With regard to the information age, Li notes the following:

We should try hard to prevent direct conflicts with the enemy in the high-technology field, and should create and select the most favorable timing, direction, form, and target to annihilate the enemy's effective forces by combining conventional assaults with the 'assassin's mace.' The battlefield is the harshest examination ground where there is only one winner, and no position for the first runner-up. ²²⁵

Li believes that in order to confront an opponent's informationization process it is necessary to enhance the friendly forces

²²² Ibid.

²²¹ Ibid.

²²³ Ibid.

²²⁴ Ibid.

²²⁵ Ibid.

combat capabilities. Perhaps for this reason China focuses on improving the capabilities and utility of the combat power generation model that the PLA has developed. Li adds that there is no reason for the PLA to be as transparent as the West. Western nations use transparency as a way to demonstrate strength and impose deterrence. The PLA's lack of transparency in itself is a means of deterrence, since the force becomes ambiguous and unpredictable for potential foes. He adds that "those who exaggerate the power of information warfare itself are exerting a kind of information warfare." 227

Finally, Li writes that when fighting under informationized conditions the PLA cannot cast away old traditions. Just because one side controls information does not mean it will win. Old stratagems and methods of fighting can be used in the information age. For example, if the PLA can wipe out an opponent's effective information strength, such as its command posts and communication hubs, 228 then it has a chance to secure victory. Perhaps for this reason the PLA has focused on its intense cyber reconnaissance of US systems, to find ways to inhibit the use of these same command posts and hubs.

Xue Guo'an

Colonel Xue Guo'an, Deputy Director of the Department of Strategic Studies at the PLA's National Defense University, wrote in 2010 on the topic of traditional strategic thought. He stressed the importance attached to stratagem and real strength, and the importance of soft tactics.

Xue traced the PLA's interest in comprehensive analysis back to China's agricultural civilization. Many factors had to be considered to ensure good crops, and this focus on the macro view has continued unabated through the ages, in Xue's opinion. Planning for war is done "from an overall and macroscopic perspective before dealing with issues

²²⁷ Ibid.

²²⁶ Ibid.

²²⁸ Ibid.

regarding operational guidance."²²⁹ Strategists are required to stand high and see far, pondering depth and long-term development. Xue noted that Sun Tzu was interested in the comprehensive scrutiny of politics, economics, legal systems, natural environments, and military issues of both parties. Strategic planning involved manipulation. Military strategists of later generations regard the use of stratagems as the origin of strategic thinking. Further, he noted that Wei Liaozi, a military strategist of the Period of Warring States (which lasted from approximately from 475-221 B.C.), clarified that as far as war is concerned, "a military act is an instrument whereas the political consideration represents the purpose."²³⁰ To Xue, this statement is more profound than Clausewitz's "war is the continuation of politics by other means." This leads to a situation where "political strategy determines military strategy, and military strategy is subordinate to and serves political strategy."²³¹

Of particular importance to Xue is that at the strategic level Westerners appear to focus on power, whereas the Chinese focus on stratagem use. Stratagems must function in coordination with the overall situation or be planned in advance to supplement limited power and enable victory. A stratagem's development depends on collective wisdom, not that of one individual.

The PLA attaches equal importance to both stratagems and actual strength. However, Xue adds that the strategy of soft military force covers both national and military strategy. China's geographical situation over time has created a need for stability and tranquility. Three effects are generated through soft force. First, it is easier to hide one's intentions and avoid decisive battles. Second, it helps ensure steady development and reverses unfavorable situations. Third, making friends with neighboring countries helps expand one's kingdom. A soft force can be used to lure an opponent into exhausting its actual strength, thereby changing the overall balance of a situation. As Xue then notes, "strategic

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²²⁹ Xue Guo'an, "Characteristics of China's Traditional Strategic Thought," *China Military Science*, No. 3 2010, pp. 116-122.

²³⁰ Ibid.

²³¹ Ibid.

thinking on soft military force is based on the idea of building up one's latent power. War is a rivalry in stratagems and wisdom and a competition in material resources."²³² Further, "applying perfect stratagems to weaken one's adversary and maintaining a low profile in developing one's national strength are the two elements of the strategy of soft military forces."²³³

Acting in time and striking only after an enemy has struck are two areas where soft force places emphasis. However, the latter principle depends on the opportunities before one's force. If it is clear that another force is preparing to hit you, then it is only expedient to strike first and gain the initiative, especially since gaining the initiative in information or cyber wars is extremely important.

Xue noted three defects or problems associated with the PLA's traditional thought. First, it is possible that some treasure the classics too much, worshipping sages and imbedding a degree of conservativeness. In turn, this has caused many to overlook innovation. Second, some attach great importance to doctrine but overlook weaponry's use, paying too little attention to science and technology. Strategists of ancient China almost totally ignored military technological factors. Finally, attaching importance to land power at the expense of sea power must be overcome. As a result China is only now catching up in the sea power area.

In summary, a strategy of active defense, a strategy of getting ready to attack (while assuming the defense), a strategy of defeating the enemy with stratagem, and a strategy of defense serving the offense are ways to use soft military force. The author notes that this is representative of the typical characteristics of China's traditional strategic thinking.

Chen Zhou

In 2012 Major General Chen Zhou, the Director of the Academy of Military Sciences Center for National Defense Policy, discussed strategy in relation to developments in the Asia-Pacific region. He called

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²³² Ibid.

²³³ Ibid.

upon the Marxist methodology several times to support his discussion. For example, he wrote that "how to observe the situation is the major issue of Marxist theory and strategy." The Marxist method of observation was based on viewing reality through the prism of objective reality, indicating this method remains of vital interest to PLA analysts. Chen states that security challenges are complex, but China must "adhere to the historical dialectics of Marxism." Quoting then President Hu Jintao, he notes another Marxist example, stating that Hu

Adheres to the use of Marxist analysis methods to observe the situation; repeatedly stressing the use of broad vision to observe the world; with a profound understanding of the overall domestic and international situation and the close connection between internal affairs and foreign diplomacy. We need to comprehensively grasp these profound changes and the characteristics of the world and improve our abilities and scientific evaluation of the international situation while carrying out strategic thinking. ²³⁶

Chen discussed the impact of strategy on cyber issues as well. He stated that cyberspace has many implications for international competition and "will largely determine the growth and decline of international strategic strength in the 21st century."²³⁷ In this sense China must develop strategic countermeasures to confront this competition. Chen writes that some countries are implementing the strategies of spreading Western ideas to divide and demonize China. This has resulted in the countermeasure struggles of Internet infiltration and anti-infiltration, disruption and anti-disruption, and subversion and anti-subversion. This countermeasure struggle is important, since information networks have become "the strategic infrastructure for the military to enhance its operational capability based on information systems."²³⁸

²³⁴ Interview with Chen Zhou, "Scientifically Judge the New Situation and Calmly Respond to New Challenges," *China Military Science*, No. 3 2012, pp. 45-52.

²³⁵ Ibid.

²³⁶ Ibid.

²³⁷ Ibid.

²³⁸ Ibid.

Cyberspace and information networks, he notes, are combat power multipliers that can increase the vulnerability of operational systems from an objective point of view.

Chen reminds his readers that Marxism remains relevant, especially its comprehensive nature and dictate to view objective reality as a major issue of strategy; and that countermeasures are important ways to implement strategy after studying an opponent ("know your enemy and know yourself..."), even in the information age.

Conclusions

The thoughts of retired military officers remind readers that contemporary PLA strategy is now a mix, from their perspective, of three items: traditional ancient thought, the more contemporary communist Marxist and Maoist thought, and science and technology. From the ancients, the use of stratagems is continually stressed and appears to play as large a role today as in the past. Marx's and Mao's thinking remain important methodologies for considering situational context. And PLA theorists have found ways to include stratagems in cyberspace issues.

Modern updates include continued references to the thoughts of not only Marx and Mao, but also Deng and Jiang Zemin. Objective reality assessments using subjective initiative is continuing, as is the development of better ways to measure the CNP of China and other nations.

Added to this mix is a focus on integrating stratagems with science and technology issues. The Chinese hope to escape their ancient reliance ONLY on stratagems, and are investigating new ways to innovate and cross mix stratagems with science and technology issues. Some of these issues have already found common ground in the development of a soft force. The development of countermeasures in peacetime was stressed, along with the necessity of making war preparations now, where a strategy of defense can serve the offense as well. Flexibility in operations, use of deception and surprise, and the use of stratagems at all levels of war was noted. With these developments, strategy will continue to be a PLA focus and an "assassin's mace," if you will, of the highest order. It is thus wise to study the PLA's strategy.

CHAPTER FIVE: HOW TAIWAN SPECIALISTS VIEW CHINESE MILITARY STRATEGY

Introduction

The nation closest to understanding People's Liberation Army (PLA) thinking on military strategy from a historical and cultural perspective is the Republic of China (ROC or Taiwan). The two nations share a common language and, until the mid-1940s, a common heritage.

Over the years, Taiwan's analysts have written on a broad range of topics related to Chinese strategy, to include energy, technology, resources, and military issues. A short list of some of the topics from 2006-2013 is provided below for reference:

2006

- An Analysis of the Development and Significance of the PRC's Military Strategy
- The PRC's Energy Strategy
- An Investigation into Hu Jintao's Taiwan Strategy and Relevant Countermeasures of the ROC
- An Investigation into the PRC's New Strategy for Science and Technology Development

2007

- An Analysis of the Strategies of Various Armed Services of the PRC (Parts One and Two)
- A Study of Our Perception of the PLA's Asymmetric Warfare
- An Investigation into the Relationship between the PRC's Economic Development Strategy and its Navy's Strategic Development

2008

- The Study and Analysis of the Evolution of PRC Military Strategy
- Analyzing China's National Strategy

- Investigation into the PRC's Taiwan Military Strategy after the 17th National Congress of the CPC
- An Analysis of the Threats to the PRC's National Strategic Resource Security
- An Analysis of the PRC's Strategy for Energy Security

2009

- The PRC's Geostrategic View
- Deconstructing the Chinese Communist Triple Warfare Strategy/Plot [psychological, public opinion, and legal warfare]
- Study, Analysis of Communist Part of China's Paralysis Warfare Thought, Combat Force Development

2010

 Analysis of, Response to PRC's 'Three Non-Operations' [noncontact, nonlinearity, and nonsymmetry]

Specific articles that refer to strategy appear to be fewer in numbers today than in recent years. This is somewhat odd only because at a time of tremendous change in the Asia-Pacific region's security situation, the expectation would be that Taiwanese analysts would be closely following changes in Chinese strategy. Of course, due to limited search options due to language capabilities, there may be many such articles in existence of which this author is simply unaware.

This chapter will look at a select few of the articles written by Taiwanese authors: the 2006 "An Analysis of the Development and Significance of the PRC's Military Strategy;" and two articles from 2008, "Analyzing China's National Strategy" and "A Study and Analysis of the Evolution of the PRC's 'Military Strategy'." Of interest is that, despite being the nation with the closest association to and understanding of Chinese culture, there is at times little agreement between what is written in China and in Taiwan regarding PLA strategy. The objective-subjective thought process is not discussed in these articles, although

Marx plays a prominent role in the discussion. The topics stressed by Western analysts (comprehensive national power and *shi*) are not mentioned in these articles. The Taiwanese analysts focus on people (Marx, Lenin, Mao, Deng, Jiang) and their theories more than thought templates.

"An Analysis of the Development and Significance of the PRC's Military Strategy"

In 2006 Chang Shu-ch'eng, a Navy Lieutenant Commander and research fellow with the Taiwan Strategy Research Association, wrote in this article that there are three strategies that developed in the PLA: People's War, People's War under modern conditions, and People's War under information transformation (usually stated as high-tech conditions). People's War takes Mao Zedong as its representative, according to Chang. Mao's set of strategies to defeat a superior enemy included self-preservation, active defense, protracted war on interior lines, mobile battles and guerilla battles, strategy transformation at the right time and place, and strategic counter attacks. The three stages of People's War are strategic retreat, strategic holding, and strategic attack.²³⁹

China continues to adjust its military strategy to its national security and national interest requirements. Military strategy is defined, according to a PRC document Chang cites, as "the guide of a war, so as to reach a war's political goals, based on the preparation and guiding principles, tactics, and methods for carrying out a war that is determined and adopted by the laws of war." ²⁴⁰

People's War under modern conditions stresses mobile battle, attack and quick battle, and positional battle. This concept was supported by Deng Xiaoping. It has six points associated with it: maintain People's War thought, conduct integrated sea-land-air attacks, increase the strength of the country (especially economic strength), use the human factor, use an integrated force (a People's army, Armed People's Police,

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²³⁹ Chang Shu-ch'eng, "An Analysis of the Development and Significance of the PRC's Military Strategy," Taipei *Hai-chun Hsueh-shu Yueh-k*, 1 December 2006.
²⁴⁰ Ibid.

and reserve militia) system, and investigate the strategy of People's War under modern conditions (emphasizing active attack in defensive battle, as well as mobile and special forces battle thinking). Now active defense ignores the old strategy of drawing the enemy in deep, due to the fact that the first battle could be decisive. Economic construction was given priority. With less attention paid to the military, the latter was told it could enter into its own business practices.²⁴¹

In January 1993 China moved toward the theory of winning local wars under high-tech conditions. Strategic thought moved in the direction of an informatized regional war strategy. The controllability of a regional war under such conditions has increased, while destruction has increased as well. The two fundamental changes that have yet to occur are moving from concentrated human power to concentrated technological power and moving from a scale of quantity to a state of quality. Sea and air superiority must be the main models for national defense. Technology has caused military behavior to become more transparent, and this has put more pressure on insuring that space and cyberspace are better controlled. Security borders have expanded, and security problems have become internationalized.²⁴²

In conclusion, Chang wrote that the 1999 Chinese book Unrestricted War is the modern day version of People's War. Chinese military strategy "lies in reconciling the relationship of the three aspects of people, materials, and information."243 It is able to adjust at a moment's notice. Military theory now emphasizes systems integration and intelligence instead of people. A core problem for the military remains the suspicion and jealousy caused by the non-transparency of China's political powers.²⁴⁴

"Analyzing China's National Strategy"

This 2008 article, also by Chang Shu-ch'eng, does not directly mention the objective-subjective criteria behind military strategy, but it

²⁴¹ Ibid.

²⁴² Ibid.

²⁴³ Ibid.

²⁴⁴ Ibid.

does come very close to verifying it. The author notes that "the analysis of the environment as a Chinese traditional practice and the realistic countermeasures based on a study of both the deceptive and real aspects of interaction between two belligerent parties represents that connotation of China's national security strategy."²⁴⁵ That is, an assessment of objective reality or comprehensive national power would be in line with traditional practice, while deceptive thought approximates the use of subjective initiative.

Chang believes that three priorities affect China's national-level strategy. The top priority is given to safeguarding the political regime's legitimacy and domestic stability. Second is the peaceful settlement (in favor of China) regarding sovereignty over land and sea issues. Third is the need for ensuring a stable external environment. The three pillars of legitimacy remain ideology, economic development, and nationalism.²⁴⁶

An example of settling issues in China's favor is the Taiwan issue. The issue of "retaining sovereignty" lays down the bottom line for the use of force, as does China's "Anti-Secession Law." Chang notes that Chinese President Hu Jintao's "four nevers" include never deviate from the one-China principle, never changing the policy of pinning hope on Taiwanese compatriots, never compromising in the struggle against secessionist forces in Taiwan, and never giving up on efforts for a peaceful solution to this issue. In fact, China believes that while seeking conciliation, it must never slack in its preparation for military struggles. The better prepared for this eventuality the easier it is to achieve the goal of conciliation. Meanwhile, juxtaposed against these demands is a host of Chinese issues designed to mollify Taiwan.

Chang finds that the PRC's interest in joining the US-led international structure to confront North Korean nuclear ambitions signals a change in the PRC's geostrategic influence. North Korea used to be an exclusive sphere of influence for China. The exchange of

²⁴⁷ Ibid.

²⁴⁵ Chang Shu-ch'eng, "Analyzing China's National Strategy," Taipei *Kung-chun Hsueh-shu Shuang-yueh-kan Online*, 18 July 2008.

²⁴⁶ Ibid.

influence allowed China to achieve a more stable international environment, one more conducive to the PRC's political and economic development. However, while allowing the US to diplomatically intervene, the Chinese do not hesitate to assert that the US is the greatest threat to international peace due to its "imperialist" policies.²⁴⁸

Chang asserts that China has continued to accelerate the modernization process to increase its integrated national strength, which is close to stating that it is increasing its comprehensive national power. However, he does not use this phrase, and states that the achievement of national strategic goals in China lies in the pursuit of science and technology. He further writes that the PRC is now playing the role of the protector of Marxism, a new role it began playing in the post-Cold War era. Atheist China, he writes, is pursuing Marxism, since the latter believes religion is only an objective reflection of political and economic conditions.²⁴⁹

In another strategic move the PRC now is accepting admittance to multilateral organizations. Under today's conditions, participation allows China to help develop norms and standards enabling it to better safeguard and promote its own national interests. China's ability to win the appreciation of others for its new-found role in regional affairs is also dramatically increasing its influence. Further, in opposition to the thinking of some US analysts, China has "gradually forsaken Deng Xiaoping's strategic thinking of "keeping a low profile" and "never acting as a leader." It has imported foreign funds, technology, and energy resources, gone abroad to find oil supplies, and started to build oil pipelines and railways across the Middle East, Central Asia, and Southeast and Northeast Asia. Chang adds that Jiang Zemin's "three represents" was designed to bring into the fold the increasing number of influential entrepreneurs. The Hu Jintao era added the strategy of "sustainability" in the hope of advocating scientific development. Hu also stressed promoting harmony among different ethnic groups. ²⁵⁰

²⁴⁸ Ibid.

²⁴⁹ Ibid.

²⁵⁰ Ibid.

Chang writes that maritime strategy is deemed to be a sub-level of national strategy. It is defined as "the strategy for the state to centralize the development and utilization of its maritime territory and international waters. It is subordinate to national strategy, and oceanic development is an important component of the national economic development strategy." The objective is to "promote sea power, make use of maritime resources, expand sea transport, support national policies, and safeguard maritime rights and interests." China's 18,400-km-long coastline demands more attention, Chang notes, and thus the PRC is shifting focus from land to sea power. There is an effort underway to create an all-directional development of oceanic resources (the integrated development of coastal areas, offshore waters, maritime oil and natural gas industry, maritime fisheries, etc.). Thus, maritime strategy is now becoming a component part of China's grand strategy, the other two parts being nuclear strategy and Asia-Pacific strategy.

In conclusion Chang notes that in 2008 China had an accurate understanding of the security environment's advantages and disadvantages. The national security strategy that it has developed is favorable to its security, notwithstanding the risks over which it can lose control. The strategy appears to favor security over development. Issues of prejudice or misjudgment can cause disastrous consequences for China if not effectively thought through.

"A Study and Analysis of the Evolution of the PRC's 'Military Strategy'"

In 2008 Air Force reserve Colonel Luo Ch'eng-lie discussed the evolution of the PRC's military strategy in this article. It was most informative in its coverage of many of the same key figures stressed by Western authors. Luo writes that the book, *PLA Terminology*, defines military strategy as the method of guiding the conduct of a war as a whole. This covers strategic guidelines, building and employment of the

²⁵¹ Ibid.

²⁵² Ibid.

²⁵³ Ibid.

armed forces, preparation for war, armed services strategies, theater preparations, and strategic command and the strategic rear. ²⁵⁴

Luo notes that the theoretical basis for the PRC's military strategy originated with Marxism-Leninism. He discusses the basic components of Marx's theory of property and social issues as they relate to war. He notes that "the main feature of Lenin's theory of revolutionary war is the total war theory based on People's War." Military dialectics is defined as "a branch of study which applies Marxist philosophy to observing, studying, and guiding war and other military activities; it is the theoretical basis and methodology of military science..." War and peace are not envisioned as antagonistic concepts but rather as peace being another form of war. ²⁵⁷

Luo notes that Mao's strategic thinking was strongly influenced by Marxism-Leninism. Mao's theory of the whole situation of war included national strategy, field operation strategy, and guerilla strategy. Strategy was the planning and guidance of the whole situation of war, covering political, military, economic, and geographic issues. Mao stated that war is politics with bloodshed, while politics is war without bloodshed. This is reminiscent of Marx's thought that peace is another form of war. At the same time, the Party must command the gun, and the gun is never allowed to command the Party. Luo writes that, based on Clausewitz and Lenin's writings, Mao developed the theory of People's War. However, the 2000 PLA book, *The Science of Military Strategy*, from the Academy of Military Science in Beijing gave Marx and Engels credit for developing the theory of People's War.

Luo writes that in 1982 Deng Xiaoping noted the necessity of integrating Marx's universal truths with China's specific circumstances. Preparing for local wars and contingencies was a primary task. Simultaneously, he wanted to develop national defense science and

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²⁵⁴ Luo Ch'eng-lie, "Study, Analysis of the Evolution of PRC Military Strategy," *Kung-chun Hsueh-shu Shuang-yueh-kan*, Online, 19 March 2008.

²⁵⁵ Ibid.

²⁵⁶ Ibid.

²⁵⁷ Ibid.

²⁵⁸ Ibid.

technology, paving the way for military modernization. Thereby was born Deng's concept of People's War under modern conditions. ²⁵⁹

Jiang Zemin continued to pursue Marxism-Leninism and Mao's military thought. Hu Jintao appeared to agree with Jiang. In summarizing military strategy, Luo stated the following:

Ever since its founding, the PLA has been faithfully pursuing Mao Zedong's military thinking on 'People's War' and 'active defense,' which is the foundation of the CPC's military strategic thinking system. ...Deng Xiaoping revised his military strategy in 1985, developing the theory of active defense featuring the theory of People's War under modern conditions...Jiang Zemin even stressed the necessity of mastering the skills for winning local wars under high-tech conditions...the changes in strategic modes and strategic tasks have resulted in the PRC military strategy featuring active defense.²⁶⁰

Luo also chose to make a final statement regarding the focus of the PRC leadership on communism. He stated in the final paragraph of his article the following:

The PLA, since its founding, has always been pursuing the army-building thinking of Mao Zedong and Deng Xiaoping, that is, the Marxist and Leninist army-building theory...and then to Jiang Zemin's five-point statement...the entire evolution indicates that the CPC, while continuing to stress the Party's absolute leadership over the armed forces, is still placing the greatest importance to building up the leader's ideological authority and is still holding control of the armed

²⁵⁹ Ibid.

²⁶⁰ Ibid.

forces...reflected in 'the Party's leadership over the army. , 261

Conclusions

Current Taiwanese writings on the PLA appear more focused on the particular types of PLA strategy. Specific strategies such as acupuncture war, three warfares, paralysis warfare, asymmetric warfare, and the three non-operations have all been discussed and stressed to varying degrees. These topics are highlighted at the expense of more elaborate definitions and discussion of military strategy in general.

In the past, such discussions were more commonplace. For example, in 2005 Air Force Colonel Hsieh Chih-p'eng wrote a nice description of the development of Chinese military strategy. He defined military strategy as the planning and guidance for its overall military struggle and situation in which relevant political goals can be achieved mainly via military power's development and application. Major decision factors may include the following: relevant strategic thought (positions on national military issues, basic viewpoints and principles in directing military operations); the relevant strategic environment (the international strategic situation); and relevant material conditions of a military power. More importantly, the article stresses that in order to counteract the superiority of a potential enemy, China may find it necessary to preemptively attack in order to attain the initiative. ²⁶² The article liberally quoted Mao, Deng Xiaoping, Jiang Zemin, and Hu Jintao, and noted that active defense stresses winning a People's War under modern conditions. Thus, the article does what other Taiwanese writers believe that Western researchers fail to do—use words/theories of Chinese leaders.

Naturally there are hundreds of articles written in Taiwan on the topic of military strategy but, due to language and translation issues, many are not available to Western analysts. It will be important for Western analysts to keep pace with the work of their Taiwanese

²⁶² Hsieh Chih-p'eng, "An Investigation into the PRC's Military Strategic Development and Capability in the New Era," Taipei Kuo-fang, Tsa-chih, 10 October 2005.

compatriots, as the latter may have a much better sense of what is happening in regards to PLA military strategy. Theirs is a source of information to be seriously considered.

PART TWO: STRATEGIC CASE STUDIES: CYBER AND GEOPOLITICAL ISSUES



CHAPTER SIX: CHINA'S STRATEGIC CYBER INVASION: WHAT THEY SEE, WHY THEY DO IT

Introduction

China's invasive cyber activities make perfect sense—to them. Through extensive reconnaissance activities, China gains leverage in three areas: its ability to establish a cyber strategic advantageous posture over potential opponents; its ability to identify key nodes in an opponent's network and gain the potential ability to conduct system sabotage against them if necessary; and its ability to develop a cyber deterrence concept of Chinese-make through the construction of a new type of "show of force," such as the identification and revelation of a potential opponent's cyber geography that deters an opponent from acting. Cyber espionage activities are activated due to a specific strategic thought process and resulting paradigm that subsequently uncovers strategic opportunities.

The following chapter provides a potential Chinese-based thought process to explain such cyber behavior. The explanation is theoretical. It examines what cyber factors the Chinese see as exploitable, how these factors interact with strategy, why China continues to capitalize on these observations, and what the US and other nations can do to define a counterstrategy that would slow these activities.

Also noted are propaganda mistakes the Chinese made when responding to the Mandiant Report, a recent report accusing a specific Chinese military unit of conducting cyber espionage against the US. These mistakes rendered the Chinese response nearly impotent upon arrival.

What China Sees, Why They Use Cyber

An understanding of the contemporary objective factors of cyber is vital to comprehend what the PLA sees and how their concept of strategy is applied. This concept is different from the ends, ways, and means method of strategy, which is the most often cited US way of understanding the term. The 2007 People's Liberation Army (PLA) book *The Theory of Military Strategy*, as but one example, notes that "the

relationship between the strategic environment and military strategy is a relationship between objective reality and subjective guidance."²⁶³ The strategic environment refers to the "objective situation and conditions affecting national security and the situation of military struggles as a whole that present themselves in a given period of time."²⁶⁴ Science and technology, the book notes, have a "propelling" effect on military strategy.

In contemporary times, a cyber strategy is the result of the creative use of subjective thought to manipulate or guide objective cyber conditions, which are the dynamic new aspects of the strategic environment. Chinese specialists do so via electron-based stratagems, and they write openly about it. For example, a packet of electrons can execute a stratagem such as "rustle the grass to startle the snake," that is, cause firewalls to alert and thus expose defense capabilities when probed.

The Chinese *Xinhua Cidian* (*Xinhua Dictionary*) defines subjective and objective factors as follows:

person's thinking Subjective refers to a understanding. Objective refers to the material world existing outside of a person's consciousness [emphasis is the author's]. The relationship between subjective and objective is a dialectical unity. Objective does not rely on subjective and exists independently, it is the source of subjective, it determines subjective; subjective reflects objective, and actively reacts with objective, under certain conditions it determines the effect of objective. objective world is constantly developing and changing. and a person's understanding must also accordingly develop and change.²⁶⁵

²⁶³ Fan Zheng Jiang and Ma Bao An, *On Military Strategy*, National Defense University Publishing House, 2007, p. 60.
²⁶⁴ Ibid.

²⁶⁵ Xinhua Cidian (Xinhua Dictionary), 1985, p. 1106.

China's comprehensive view of the contemporary world, in accordance with this definition, has changed as new objective factors (in this case cyber) have emerged. In the cyber arena, objective factors include, but are not limited to, the following:

- US weaknesses in protecting its cyber systems
- anonymity associated with cyber attacks
- availability of people and equipment to be used as surrogates (hackers or servers) to mask attack vectors
- lack of rules and regulations to guide international cyber behavior
- ability to use packets of electrons as stratagems to manipulate perceptions and actions (e.g., phishing)
- long- and short-term intelligence capability of cyber reconnaissance, often without detection
- use of Chinese censorship versus US openness
- development of organizations that can create new cyber scenarios for exploitation
- focus on a code of conduct instead of the law of armed conflict by China
- development of different types of cyber geography and methods of exploiting them
- US use of dialogue instead of confrontation in regard to cyber actions
- transnational character of cyber issues
- easy access to trade secrets or intellectual property via cyber systems, to include the production of information technology items (iPhone, etc.) in China for export to the West.

Thus what China "sees" is objective cyber factors that, when the proper subjective thought is applied, help achieve equilibrium with or an advantage over competitors. More importantly, a key element of the objective factor of cyberspace is that it is invisible! Cyber is an objective factor that belongs in a whole new category. A show of force in the cyber world is very different from a show of force involving tanks. A cyber show of force can involve actually mapping and showing an

opponent his **strategic cyber geography**, thereby deterring an opponent due to the exposure and exploitability of his key nodes and infrastructure. The use of tanks simply deters from a show of hardware on a local level and does not work on a strategic scale. This is why comparisons to the old concepts of land or sea boundaries are most likely inappropriate. As *The Theory of Military Strategy* notes regarding the defense of national security:

Because of this, accurately assessing the threats and challenges confronting national security during a given period of time, scientifically predicting possible developments and change, truly taking precautions in advance and adapting beforehand, and enabling military strategy to continually become more relevant and realistic by actively adapting to the demands of the objective environment are of very important significance in effectively guiding military struggles and defending national security and development interests.²⁶⁶

Subjective thought uses and/or manipulates these objective and invisible factors to China's benefit. Subjective thought is where traditional Chinese thought (the use of thirty-six stratagems and shi, 267 for example) is applied. The combination of cyber's objective factors and subjective thought have enabled China to build up its digital prowess, reap a huge harvest of digital intelligence from other nations, and evade responsibility for these actions. There appears no end in sight to these activities, unless affected global powers undertake measures to disrupt these objective factors and stop the onslaught through actions not words. It is necessary to change the objective factors that China perceives.

The "why" of China's conduct of these activities is threefold. First, it does so because it can. China does not have to worry much about

²⁶⁶ Fan and Ma, p. 59.

²⁶⁷ For an explanation of the concept of *shi* by US authors, see Appendix One of this work. A short and concise explanation of *shi* by Chinese authors is located on the next page.

its cyber activities since it can claim innocence and point to the unreliability of foreign investigations, particularly in a time of anonymity or use of surrogates, a time that is, however, slowly diminishing. This absence of responsibility would be like one nation raining shells from drones on another nation, while the attacking nation continuously states "we aren't responsible" and the nation under attack has no way to prove drone ownership, thus allowing the rampage to continue.

Second, cyber reconnaissance activities allow China to obtain its end goal of establishing as decisively as possible a strategic advantage or *shi*, a term associated with a favorable disposition of forces. Cyber's anonymous character allows the Middle Kingdom's personnel to scout out key nodes and weaknesses during reconnaissance missions, to map a nation's cyber geography for exploitation, and to identify system sabotage possibilities. Uncovering weaknesses in peacetime allows for an initial advantage if war breaks out. Once a strategic advantage is established, China has the ability to "win victory before the first battle" in a future cyber conflict. That is, they have prepared the cyber battlefield ahead of time.

Third, and perhaps most important, the end result of strategy's basic objective is to make someone do something for himself that he is actually (unknowingly) doing for you. That is, the Chinese use cyber to get an opponent to make decisions seemingly for their own protection or good when in fact they are doing something for PLA or civilian cyber specialists. Chinese strategy specialist Li Bingyan offered an example of this objective with the following story:

With regard to a strategy of making a technical opponent do something they don't want to do, Mao asked the following: 'How do you make a cat eat a hot pepper?' His answer was as follows: 'You can stuff it down his throat (the most difficult), you can put the pepper in cheese and make him swallow it, or you can grind the pepper up and spread it on his back. The latter method makes the cat lick itself and receive the satisfaction of cleaning up the hot

pepper.' The cat is oblivious to the end goal. This is strategy.²⁶⁸

In other words, the object (the cat, a person) of strategy is oblivious to the end goal (to unknowingly do something for someone else). This objective can be fulfilled in the cyber age as easily as it was in the mechanized age. Phishing is a prime example of employing this thought process in the cyber age. Its goal is to make someone open an attachment he believes he is doing for his own edification or satisfaction, when in reality he is doing it for another and allowing this person access to his system.

Meanwhile, the harvesting of digital intelligence through reconnaissance continues, thereby enabling China to catch up faster with competitors and placing the nation and the PLA in a better position to, as the Chinese often note, defeat the superior when inferior. Cyber capabilities may, in fact, be a sub-department of the process known as China's Comprehensive National Power (CNP) index assessment, whereby China measures its power capabilities versus those of other nations. It is similar in concept to the Soviet, now Russian, concept known as the correlation of forces.

Establishing a Strategic Advantage

Traditional Chinese thought includes the concept of *shi*, an important strategic Chinese concept with roots as far back as the title of Chapter Five of Sun Tzu's classic, *The Art of War*. Retired Chinese General Tao Hanzhang defines *shi* as "the strategically advantageous posture before a battle that enables it to have a flexible, mobile, and changeable position during a campaign." The Chinese book, *Campaign Stratagems*, defines *shi* as the combination of the friendly situation, enemy situation, and the environment; as the sum of all factors impacting the performance of the operational efficiency of both sides;

²⁶⁸ Li Bingyan, "Applying Military Strategy in the Age of the New Revolution in Military Affairs," *The Chinese Revolution in Military Affairs*, ed. Shen Weiguang, New China Press, 2004, pp. 2-31.

²⁶⁹ Tao Hanzhang, *Sun Tzu's Art of War: The Modern Chinese Interpretation*, Sterling Innovation, 2007, p. 124.

and as the key factor determining the rise and fall of operational efficiency. 270

Some US analysts define the term in a similar manner. Dr. Henry Kissinger, in his book *On China*, writes that Chinese statesmanship views the entire strategic landscape as part of a single whole, where strategy is a means of "combative coexistence" with opponents. He states that "The goal is to maneuver them into weakness while building up one's own *shi*, or strategic position."²⁷¹ A strategist's task is to analyze a situation, determine its relationship to context, and capture the direction of that evolution, Kissinger notes. Another US source defines *shi* as the strategic configuration of power or advantage. Certainly, China's cyber strategy fits these descriptions. Objective factors describe the context, while subjective thought describes how these factors will be used to strategic advantage and to maneuver an opponent into weakness via cyber reconnaissance activities.

The apparent goal of the PLA's focus on cyber activities is to attain a digital quantum leap in capabilities and a strategic cyber advantage over competitors. This is accomplished when vulnerabilities are uncovered in a potential enemy's digital systems through reconnaissance activities. An advantage can also be attained by planting computer viruses that, at a specific time, could be unleashed to disable a digital system or systems. For example, a Trojan Horse is a virus that "is a form of malware that appears to perform a desirable function but in fact performs undisclosed malicious functions that allow unauthorized access to the host machine." ²⁷⁴ If a hacker can gain access to a server through a backdoor and insert a Trojan Horse, and execute it at a time of his or her choosing, then the virus attains the characteristics of a drawn bow, sitting there and awaiting the release of potential energy or advantage (*shi*) to achieve success.

²⁷⁰ Zhang Xing Ye and Zhang Zhan Li, editors, *Campaign Stratagems*, National Defense University, 2002, pp. 8-18. The same character for strategic advantage or *shi* also has been translated as energy, potential, force, disposition, and momentum.

²⁷¹ Henry Kissinger, *On China*, Penguin Books, 2012, p. 31.

²⁷² Ibid., p. 30.

²⁷³ Ralph Sawyer, *The Art of War*, Fall River Press, 1994, pp. 143-147.

²⁷⁴ Trojan Horse, Wikipedia, accessed 16 January 2009.

The Chinese have written about the disposition and potential of using packets of electrons as stratagems for years. In 2002, for example, Chinese General Dai Qingmin noted that electrons can be used as carriers of strategies. They enable reconnaissance or attacks from continents away in a surreptitious manner. This can result in a quick strategic advantage. Digital-age warfare completely fits with Sun Tzu's observation that "war is such that the supreme consideration is speed." Further, Dai added that "computer network reconnaissance is the prerequisite for seizing victory in warfare. It helps to choose opportune moments, places, and measures for attack." 275

Civilian and military hackers attempt to exploit the disposition and strategic advantage that electrons create. These activities are difficult to trace directly to the PLA or to government authorities due to the anonymous character of the Internet. This anonymity increases the *shi* (or strategic advantage) of the hacker. Further, the hacker uses packets of electrons as stratagems to change strategic advantage into a force or agent of influence to use against an opponent.

The *shi* of electrons is applicable to a state's capability to execute and conduct strategic network warfare. Objective factors to consider when employing network warfare include force capability (the strength or weakness in controlling the direction and flow of information); the amount of data possessed by combatants; the degree of network architecture redundancy (and proposed speed of recovery after being attacked); and the combat objectives and specific strategy (attack, defend, hide, move, etc.) chosen. Successfully mastering these elements can be important to the attainment of a strategic advantage.

Retired General Tao addressed the intangibles of *shi*. He wrote that a commander must make use of advantageous terrain, seize favorable opportunities for fighting, and have superiority in the quality of troops. ²⁷⁶ Put in terms of the information age, this would indicate that

²⁷⁶ Tao, p. 130.

²⁷⁵ Dai Qingmin, *Direct Information Warfare*, National Defense University Publishing House, 2002, p 96.

troops must understand the terrain of the computer, seize opportunities where they exist, such as in network reconnaissance (thereby setting the stage to win the fight before the first battle), and train information technology professionals. Troops obviously have more opportunities to achieve objectives in the absence of any defining international cyber laws.

The concept of *shi* has many potential consequences beyond the military, of course. Of concern to Western societies should be the question of whether this concept can be expanded to control market societies and to manipulate the electronic flows of free societies. If so, then it seems highly possible that one well placed and educated computer specialist could serve this purpose today and stop the flow of ten thousand (or more) decisions in the market place. As General Tao notes there is a saying: "With only one man guarding the mountain pass, ten thousand men are not able to pass." 277

System Sabotage and Cyber Deterrence

System Sabotage

The attainment of virtual *shi* or strategic advantage through extensive reconnaissance activities is the shaping mechanism that enables the use of preemptive moves and system sabotage activities at a time and choosing of the Chinese. The Chinese have noted that a postemptive move is "not an effective way to seize the initiative on the informatized battlefield." Rather, to seize the initiative and control war in the initial state of a conflict, the active offense must be emphasized, as well as system sabotage.

The book, *A Study Guide for Information Operations Theory*, described system sabotage warfare in the following manner:

What Is System Sabotage Warfare? The basic characteristics of informatized wars are that they are guided by information and that they consist of two

²⁷⁷ Tao, p. 128.

²⁷⁸ Zhang Yu, Liu Sihai, and Xia Chengxiao, "On the Art of Controlling a War Situation in Informatized Warfare," *China Military Science*, No. 2 2010, pp. 24-31.

systems fighting each other. This is why system sabotage is so important as it is the decisive mechanism of informatized operations, and it is the basic path to victory in informatized wars.

The key point to system sabotage is in 'gaining control, using precision strikes for maximum damage, and paralyzing the enemy to subjugate his will.' This primarily entails using asymmetrical operations where the emphasis is on the 'destruction' part of the equation. Methods to attack weaknesses in a system include blocking network connections, breaking down the system architecture, and lowering operational effectiveness. ²⁷⁹

Gaining control is achieved through the attainment of a cyber strategic advantage, while system sabotage is directly related to breaking down an opponent's system architecture. This implies attacks on key nodes.

Authors Xu Genchu and Dai Qingmin note that to make system sabotage effective there needs to be a basic mode of thinking where the Chinese "destroy before conducting war, using destruction to aid in the fight." This is because under informatized conditions the core elements and mechanisms for victory in war have undergone critical changes, with many key war systems capable of infiltration and sabotage before conflict begins in the cyber age. Obviously, conducting system sabotage means destroying the network before engaging in war. ²⁸⁰ For that reason, reconnaissance is so important, as it identifies the nodes to destroy and allows attackers to decide in what order.

The military press in China is often peppered with references to the system sabotage concept. Some Chinese believe that this concept is a better method of fighting in the digital age than attrition; that it utilizes both hard and soft strikes; and that it is identified as an operational pattern of war, whereas the system of systems (SoS) approach is recognized as a characteristic of war.

²⁷⁹ Xu Genchu and Dai Qingmin, *Study Guide for Information Operations Theory*, Academy of Military Science Press, November 2005, pp. 395-396.
²⁸⁰ Ibid.

Both concepts, system sabotage and SoS, increase in use under informatized operational conditions. Methods are developed for employing system sabotage operations in peacetime. During field exercises, system sabotage methods are sometimes employed in the PLA's internal red versus blue exercises. The Mission Action-2010 exercises, for example, emphasized the position and role of information as the main element guiding the exercise, "firepower as the main battle in system sabotage," and the inspection and examination of system sabotage tactics, such as precision strikes and the selection of key targets, as main items to practice in peacetime. ²⁸¹ It appears that the system sabotage element is becoming a key part of any planning stage in PLA operations.

Cyber Deterrence

Deterrence is another concept that is being discussed in PLA and civilian works. Non-warfare measures such as cyber have encouraged the use of military deterrence and have elevated it to a strategic level, according to some theorists. The Chinese note that a cyber "show of force" (a show of force might include the ability to expose the key nodes of an opponent) enables the use of both technical and psychological pressure against an opponent. As *The Theory of Military Strategy* notes regarding information deterrence:

At the same time, owing to the application of information technology in the field of military affairs, the degree of informatization of warfare elements is increasing day by day, the dominant role of information in warfare is growing, and the side that possesses information superiority will be able to quickly seize victory in war, thereby making information superiority itself into a deterrent force. ²⁸³

²⁸¹ Chen Zhi, Pan Zhiqiang, and Gao Xiaowen," A Certain Chengdu Military Region Group Army goes to an Ancient Battlefield in the Northwest—Advancing on Helan, Honing Elite Troops," *Jiefangiun Huabao*, 18 November 2010, pp. 44-45.

²⁸² Fan and Ma, p. 217.

²⁸³ Ibid.

The Chinese emphasis on the psychological quality of deterrence allows the PLA to use the cyber option so daringly in head-to-head confrontations based on risk and reward. Some theorists write that "the main consideration in deterrent war is not real-war actions…rather, the key is to cause significant awe in the adversary's psyche." In *On China*, Dr. Henry Kissinger noted Mao's tendency to utilize the psychological quality of deterrence:

For Mao, the Western concept of deterrence was too passive. He rejected a posture in which China was obliged to wait for an attack. Wherever possible, he strove for the initiative. On one level, this was similar to the Western concept of preemption—anticipating an attack by launching the first blow. But in the Western doctrine, preemption seeks victory and a military advantage. Mao's approach to preemption differed in the extraordinary attention he paid to psychological elements. His motivating force was to ...change the psychological balance, not so much to defeat the enemy as to alter his calculus of risks. ²⁸⁵

Technically, the more transparent the PLA can make the cyber battlefield through reconnaissance activities and the more the PLA can generate new combat power by transferring its pirating of military-industrial digits into combat equipment, the better its chance of attaining a psychological advantage and information deterrence capability. An opponent will be deterred when his risk calculus becomes problematic as a result of being confronted with an opponent with an offensive and seemingly all-knowing information image that appears realistic.

Writing in *China Military Science* in 2001, Zhao Xijun, a deputy commander of Second Artillery (responsible for nuclear weapons), defined deterrence as "military actions in the form of a show of force between countries or political groups, or an indication of their resolve

²⁸⁴ Ibid., p. 223.

²⁸⁵ Kissinger, p. 133.

and readiness to use force, intended to make an opponent not dare to take hostile action or to escalate his actions."²⁸⁶ In this case, a show of force could simply be the presentation to the other side of the virtual layout of its cyber infrastructure or digital terrain. If one were to attempt to extrapolate what China's cyber deterrence theory might look like from its strategic deterrence theory, Zhao's article is an interesting contemporary start point. Zhao implies that deterrence theory is based on a combination of stratagems. These stratagems are using soft power and reconnaissance to win victory before the first battle. ²⁸⁷

Zhao notes that key factors in Sun Tzu's writings that influence contemporary deterrence theory include having superior military power, being fully prepared for war, having severe measures of punishment at one's disposal, having superb skill at "attacking strategy" and "attacking diplomacy," and making one's ideology of deterrence a lynchpin in a more complete system. All of these factors have cyber-age relevance. For example, being fully prepared for war could mean mapping another nation's cyber geography. Zhao adds that a counter deterrent capability is the most effective method to stop the aggressive attempts of powerful nations from harming China's national interests. ²⁸⁸

Zhao adds that China should use an integrated deterrence approach. A single deterrent force is not sufficient to constitute effective deterrence. Comprehensive power must be employed to retain the strategic initiative. This thought brings to mind the work of Qiao Liang and Wang Xiangsui in their book, *Unrestricted Warfare*. The authors noted twenty-four different types of warfare and then theorized that a "tasty cocktail" mixture of the methods would best bring about success. ²⁸⁹ Thus, one might envision a cyber mixture as follows: cyber preemption plus network reconnaissance plus high-tech deception plus financial market disruption plus network deterrence, and so on in order to impose cyber deterrence. Zhao states that when striking, an offensive

²⁸⁶ Zhao Xijun, "'Victory without War' and Modern Deterrence Strategy," *China Military Science*, No. 5 2001, pp. 55-60.

²⁸⁷ Ibid.

²⁸⁸ Ibid.

²⁸⁹ Qiao Liang and Wang Xiangsui, *Unrestricted Warfare* (English edition), Pan American Publishing Company, Panama City, Panama, 2002, p. 118.

force must do so resolutely, threatening targets with the greatest strategic value first. When there is no smoke or gunpowder, strategy and psychology act as multipliers of power and resolve in deterrence.²⁹⁰

Editor Cai Cuihong's 2003 book, Information Networks and International Politics, proposed an information deterrence theory. The work views the information umbrella as more utilitarian than the nuclear umbrella. The information umbrella must be able to control information dominance (establish the strategic advantage!) and enable one side to see the adversary, while not allowing the adversary to see friendly activities. Anonymous cyber activities enable this situation, since they are roadblocks to transparency. Control over information has become a new deterrent force as a result. Cai's work notes that "the side that controls information can manipulate the start and conclusion of wars, can use informatized weapons to paralyze enemy weapons and command systems, and can destroy the enemy's precision-guided weapons."²⁹¹ Cai adds that "information network warfare under conditions of nuclear deterrence will be the new form of future international conflict."292 The deterrent strength of China's armed forces will be balanced on the basis of its computing power, communications capacity and reliability, realtime reconnaissance capabilities, computer simulation capabilities, and other information elements. These elements can deter through misconceptions and psychological pressure. 293

An interesting article on strategic deterrence was published in 2004 in *China Military Science*. Zhou Peng and Wen Enbin, from the Academy of Military Science, wrote that targeted deterrence can be achieved due to the controllability and flexibility of informatized measures. A show of force could be presented to another country in the cyber age simply by demonstrating control over a network. The authors add that former Chinese President Jiang Zemin recommended elevating deterrence to the level of strategy. It should be used to contain

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²⁹⁰ Zhao Xijun.

²⁹¹ Cai Cuihong, *Information Networks and International Politics*, [publisher unknown], 2003, pp. 163-164.

²⁹² Ibid., p. 172.

²⁹³ Ibid., p. 178. ²⁹⁴ Ibid., pp. 20-21.

war, delay its outbreak, or prevent its escalation. The core of new deterrence capabilities should be "assassin's mace" technologies, which would certainly fit cyber reconnaissance and digital sabotage methodologies. Due to the fast nature of high-tech wars, a war's start can have decisive significance. For that reason China "must establish an emergency mobilization combat force" if it is to unleash the deterrent effect of people's war under high-tech conditions. ²⁹⁵ This emergency mobilization force in the Information Age could be the cyber militias that China has developed.

A good deterrent force involves the use of nuclear deterrence, conventional deterrence, space deterrence, and information deterrence, again reminding one of cocktail warfare. The authors add that "The acme of the art of strategic guidance is fully reflected in the proper selection and constant innovation of deterrence forms; it is the most real, most dynamic part of wielding strategic deterrence."

The threat of system sabotage and its psychological overtone can lead to cyber deterrence. In 2007 Major General Li Deyi stated that information deterrence will rise to a strategic level close behind nuclear deterrence. New and important modes of deterrence will include information-technology deterrence, information-weaponry deterrence, and information-resource deterrence. Further, counter information deterrence will be part of China's new mode of thinking. Also in 2007 Senior Colonel Deng Yifei wrote that information deterrence would be a means, behind nuclear deterrence, to achieve national strategic goals and military strategic goals. Deng believes that information has become the core concept in military thinking. Vying for information supremacy and forming information deterrence capabilities are key areas of current military thought.

²⁹⁵ Ibid., pp. 22-23.

²⁹⁶ Zhou and Wen, pp. 24-25.

²⁹⁷ Ibid., p. 25.

²⁹⁸ Li Deyi, "A Study of the Basic Characteristics of the Modes of Thinking in Informatized Warfare," *China Military Science*, No. 4 2007, pp. 101-105.

²⁹⁹ Deng Yifei, "A Revolution in Military Thinking in the Information Age," *China Military Science*, No. 6 2007, pp. 71-78.

Also in 2007, Fan and Ma wrote on information deterrence in their work *The Theory of Military Strategy*. They divided deterrence into nuclear, conventional, information, and space forces. This division is of interest, since it clearly proposes a line of demarcation between conventional and information deterrence forces. With regard to the latter, Fan and Ma wrote the following:

We must focus on improving information acquisition and information attack and defense capabilities, and have effective capabilities for attacking and paralyzing the enemy's basic strategic information systems. Because of this, the coordinated development of forces for information acquisition [author's note: reconnaissance?], information defense, and information offense, with strategic information warfare units making up the main part, is necessary. 300

In 2009 a few top nuclear generals in China wrote on information resources and the information components of weaponry as they apply to information deterrence. For example, Zhou Fangyin noted that the concept of information deterrence is defined as forcing an adversary to lay down his weapons through demonstrations or through highlighting friendly force weaponry's advanced precision under informatized conditions. In 2010 Senior Colonel Yao Yunzhu, writing in the US journal, *Air & Space Power*, stated that China will continue to apply deterrence at the grand strategic level while depending more on "uncertainty" for a better deterrence effect. Even though her comments were with regard to nuclear deterrence, they could easily fit an information deterrence scenario. In the age of computer hacking, "uncertainty" as to a hacker's actual identity or government connection is a common problem.

³⁰⁰ Fan and Ma, p. 221.

³⁰¹ Zhou Fangyin, "The Effect of the Information Revolution on Military Affairs and Security," Beijing *Xiandai Guoji Guanxi*, 1 August 2001, pp. 28-32.

³⁰² Yao Yunzhu, "China's Perspective on Nuclear Deterrence," *Air & Space Power Journal*, Spring 2011, p. 30.

Finally, when referencing a discussion with former paramount leader of China Deng Xiaoping, Dr. Kissinger noted that Deng had proposed a preemptive policy with regard to countering any offensive moves along China's borders that could be made by the then Soviet Union. Kissinger noted that Deng's policy of preemption was an aspect of China's offensive deterrence doctrine. Today, China's cyber activities, designed to develop a preemptive strategic advantage, could be viewed in the same way.

The Mandiant Report

There have been many reports of Chinese data theft, with some detailing even the methodologies involved, such as an extensive report from Northrop Grumman (2009). There were reports of Chinese attacks on The New York Times and Wall Street Journal, and there were also detailed reports of espionage and theft labeled Ghostnet, Night Dragon, and Shady Rat, among others. The report from the Mandiant security firm did not state something new when it claimed that China was conducting extensive cyber attacks against US companies. But what was new was the identification of who was conducting the attacks and the detailed forensics that identified the incursions. Finally, someone had identified the "who and how" of China's extensive piracy. This is an important step, as dialogue and agreements, at least those visible to outside viewers, have not thwarted Chinese aspirations to date in the least. Of equal importance is that China, while maintaining that the US has conducted numerous cyber attacks against it, has no "case study" on file to back up their claims. That is, there is no Google or Lockheed Martin or Northrop Grumman equivalent. The lack of such Chinese information implies that the attacks from the US could be just hackers or people from other nations using US ISPs. There is no smoking gun as with the Chinese incursions. The latter not only did reconnaissance work but exfiltrated files and terabytes of information.

Mandiant's Claims

Mandiant identified a group of hackers it called the "Comment Crew" that has stolen terabytes of information since 2006 from over 141 corporations. As their report noted, "the sheer scale and duration of

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³⁰³ Kissinger, p. 364.

sustained attacks against such a wide set of industries from a singularly identified group based in China leaves little doubt about the organization beyond the group." With a "well-defined attack methodology" the group stole technology blueprints, proprietary manufacturing processes, and business plans. The group was identified as the People's Liberation Army (PLA) Unit 61398. *Mandiant's report* has a "torrent of details" that includes information on three of the hackers (code named Ugly Gorilla, Dota, and SuperHard) and photographs of one of the buildings in Shanghai where the attackers worked. Just as important, the report noted that "in a state that rigorously monitors Internet use, it is highly unlikely that the Chinese government is unaware of an attack group that operates from the Pudong New Area of Shanghai." 306

Kevin Mandia, Mandiant's chief executive, noted that if the thefts are not coming from Unit 61398, then the "most-controlled, most-monitored Internet networks in the world are clueless about thousands of people generating attacks from this one neighborhood." Mandiant's worry is that instead of stealing from companies like Coca-Cola, the focus appears to have changed to reconnoitering critical infrastructure in the US. One target, the report notes, was a company "with remote access to more than 60% of oil and gas pipelines in North America." Project 2049 Institute, which earlier released an excellent report on the PLA's intelligence activities, believes Unit 61398 targets the US and Canada,

Charles Riley, "Chinese Military Engaged in 'Extensive Cyber Espionage Campaign'," at https://twitter.com/intent/user?screen-name=cnnmoneytech

³⁰⁶ Lolita C. Baldor, "US Ready To Strike Back Against China Cyberattacks," Yahoo.com, 19 February 2013.

³⁰⁷ David E. Sanger, David Barboza, and Nicole Perlroth, "Chinese Army Unit Is Seen As Tied to Hacking Against US," *The New York Times*, 19 February 2013, p. 1. ³⁰⁸ Ibid.

³⁰⁹ The Project 2049 Institute, established in January 2008, seeks to guide decision makers toward a more secure Asia by the century's mid-point. The organization fills a gap in the public policy realm through forward-looking, region-specific research on alternative security and policy solutions. Its interdisciplinary approach draws on rigorous analysis of socioeconomic, governance, military, environmental, technological and political trends, and input from key players in the region, with an eye toward educating the public and informing policy debate. Information taken from http://project2049.net/about us.html

and is a central espionage entity. Mandiant also uncovered a China Telecom memo that discussed how it was to install high-speed fiber-optic lines for Unit 61398. Finally, Dell SecureWorks believes Comment Crew was behind the attacks known as Shady RAT in 2011 as well.³¹⁰

China's Response to the Mandiant Report

The initial Chinese response to the Mandiant report was simply accusatory. Numerous Chinese articles stated that the allegations were groundless, irresponsible, false, and unprofessional, to name but a few. One article even asserted that "China has been too tolerant in previous Internet disputes with the US. Since China's tolerance was not appreciated by the US, China should confront the US directly."311 There has been nothing in China's cyber activities for the US to appreciate, as the Chinese have sucked terabytes of information out of US and other nations' systems illegally. Further, the Chinese article noted that "China has no obligation to foster ties when some Americans spit on it;" and "China is not afraid of the hubbub of US public opinions, nor is it afraid of the US government taking actions against it." This hubris was probably directed by the propaganda element of the Communist Party of China (CPC), much as it was during the Chinese response to Google when the latter accused Chinese authorities of stealing information from its sites in 2010. US analysts should take this kind of jargon for what it is—useless hyperbole designed to change the internal media's psychological atmosphere and to tell people in China that the nation is a victim, not an aggressor, of cyber incursions.

On 20 and 21 February it became clear that the Chinese had developed for internal and external consumption a set of US rationales to explain why Mandiant had accused China of hacking US systems. The clear goal was to regain control of the narrative and achieve a psychological edge over potential opponents.

310 Sanger, Barboza, Perlroth.

312 Ibid.

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³¹¹ "Hacker Claims Reflect US Intention of Cyber Hegemony," *Global Times* Online (in English), 21 February 2013.

The Chinese campaign countering Mandiant's report fell into one of several categories noted below. After the category are listed some of the Chinese responses supporting the category:

The Mandiant report offered a pretext for attacking China:

- The hacking accusation is used to justify a pretext for a preemptive cyber strike by the US.³¹³
- The hacking accusation gives the US greater leeway to carry out its own cyber attacks. 314

The Mandiant report is a reflection of politics:

- The accusation of a hacking threat from China was politically motivated.³¹⁵
- The hacking accusation allows the US to attain an upper hand in Sino-US relations. 316
- The hacking accusation allows the US government to create a potential cyber rival. 317
- US accusations have deep social, political, national interest, and ideological motives. 318
- The hacking accusation reveals a lack of trust in China and anxiety over national security.³¹⁹
- The US government and private companies play good cop, bad cop with China. 320

³¹³ Zhong Sheng, "Do Not Treat Cyberspace As a War Theater: Avoid Harming Others and Damaging Oneself," *Renmin Ribao* Online, 27 February 2013, p. 5.

³¹⁴ "1st LD-Writethru-China Focus: Chinese Media Lambaste US Hacking Allegations," *Xinhua* (in English), 22 February 2013.

³¹⁵ Zhao Shengnan, "China Refutes Accusations of Launching Cyberattacks on US," *China Daily* Online (in English), 20 February 2013.

³¹⁶ "2nd Ld-Writethru-China Focus: China Defense Ministry Refutes Cyber Attack Allegations," *Xinhua* (in English), 20 February 2013.

³¹⁷ Li Wei Interview, "Chinese News Live," *Feng Huang Wei Shih Tzu Hsun Tai*, 20 February, 2013.

³¹⁸ CNTV (in English), 20 February 2013.

³¹⁹ Ibid.

³²⁰ CCTV-4, 20 February 2013.

- The hacking accusation allows the US to use a fresh topic with which to criticize China. 321
- The hacking accusation can be used to achieve a strategic goal of containment or deterrence. 322

The Mandiant report offers a rationale for a US cyber force expansion:

- The hacking accusation allows the US to expand its cybersecurity forces. 323
- The hacking accusation is a US habit that indicts other nations based on phony evidence.³²⁴

The Mandiant report enables a rationale for the imposition of restrictions on China:

- The hacking accusation allows the US to levy more technology restrictions on China.³²⁵
- The hacking accusation allows the US to limit a competitor that it sees in China's information technology and economic sectors.³²⁶
- The Mandiant report allows the US government to take more forceful action by applying more pressure on China. 327
- The hacking accusation is a US attempt to attain network hegemony. 328

³²¹ Ibid

³²² Chu Lei, "Is Cyberwarfare a New Excuse for Bashing China?" *Hsiang Kang Shang Pao* Online, 21 February 2013.

³²³ Zhao.

³²⁴ Dennis Chong and Agence France-Presse, "Hkust Probes US Firm's Claims of Hacking," *South China Morning Post* Online (in English), 22 February 2013.

³²⁵ Ibid.

³²⁶ CNTV...

³²⁷ Ibid.

³²⁸ "Hacker Claims Reflect US Intention of Cyber Hegemony," *Global Times* Online (in English), 21 February 2013.

The Mandiant report is a threat presentation designed to eliminate budget cuts:

- The hacking accusation allows the US to cultivate fears and mitigate military budget cutbacks. 329
- The hacking accusation is actually a lobbying effort by groups and companies for legislation and increased funding for cybersecurity. 330

The Mandiant report was written to protect the company's commercial software interests:

- The hacking accusation allows the US government, under pressure from businesses, to limit competition from China. 331
- The hacking accusation allows for the government, military, and businesses to form an alliance. 332
- The Mandiant report is a way for the software company to promote its product. 333
- The hacking accusation is a way to practice trade protectionism or adopt economic sanctions.³³⁴
- The hacking accusation uses China as a scapegoat to cover economic losses for some companies. 335

The Incoherent and Counterproductive Chinese Accusations

China's arguments against the Mandiant report were the result of the production of counters (the dialectic thought process) to claims made by an opponent. These counters to the report failed to generate traction. A primary reason for this failure was the set of conflicting narratives that

³³² CCTV-4.

^{329 &}quot;2nd Ld-Writethru-..."

³³⁰ Zhao Shengnan, "Cyberattacks Using US IPs Target Military," *China Daily* Online (in English), 21 February 2013. ³³¹ Ibid.

³³³ Ibid.

³³⁴ Ibid.

³³⁵ Ta Kung Pao Online, 21 February 2013.

reduced Chinese arguments nearly to nonsense. It appeared that the arguments were developed for two audiences, China's internal population and the external world. These divisions in target audiences produced themes that contradicted one another. The following list is designed to bring these incoherent Chinese points to the reader's attention.

- 1. An objective fact is that China says it does not engage in cyber sabotage. The Chinese state that they want to ban all cyber sabotage activities, 336 yet they write about the concept widely in the military press, employing a concept known as "system sabotage," which is designed to take out cyber systems of other nations if war erupts. A description of that concept and the Chinese sources supporting it was provided above. Or consider the 2007 Chinese book *The Theory of Military Strategy*, which notes in the subsection of the chapter "The Ideology of Battle" that it is necessary to "proactively perform intensive sabotage on vital systems of the enemy." 337
- 2. An objective fact, according to the Chinese, is that the US has matchless superiority and the ability to stage cyber attacks. This causes one to question that, if the PLA believes this assertion, why would Mandiant's analysis be unprofessional and unreliable? After all, US technology is superior according to the Chinese! This is apparently the use of the stratagem "appear weak when strong," since not only does China have very good hackers but also a multitude of them. These professional pirates are not affected by the same laws of armed conflict as Western nations. It is especially here that the narrative fails. It is highly unlikely that one who is superior will produce reports that are "unprofessional and unreliable."
- 3. An objective fact is that the Chinese state they do not steal information. Yet numerous nations name only China as the perpetrator of digital theft. Terabytes of information have been stolen. Do small-time hackers need precision-targeted military information in these quantities?

³³⁶ Zhao Shengnan, 20 February 2013.

³³⁷ Fan Zheng Jiang and Ma Bao An, *The Theory of Military Strategy*, National Defense University Publishing House, 2007, p. 3.

If the perpetrators are individuals, then why has this information not been sold on the open market by cybercriminals over the past six years? Clearly the culprit must be a nation-state that needs the information for its military-industrial complex. This information would assist the China Dream of becoming a strong military force.

- 4. An objective fact is that the Chinese state they want cooperation in cyber affairs yet they continually refuse to investigate foreign claims of intrusions. China's official responses from the Foreign Ministry and Defense Ministry were not those of alarm. Rather, they immediately went on the offensive after the Mandiant report was released. They chose to ignore this six-year study. There was not even a hint of a desire to investigate the charges. The Mandiant report is one of numerous accusations that have been made against the Chinese. However, in spite of foreign (some fifteen countries) evidence to the contrary, the Chinese have repeatedly failed to cooperate and investigate the accusations. Why? It must be because there is no reason to investigate if one is guilty and needs to cover one's tracks. Only the University of Science and Technology stated that it would investigate the use of its IP addresses by hackers in regard to the Mandiant report, ³³⁸ not the two ministries who were at the center of the dispute. Again, the narrative fails as the Chinese argue for cooperation yet have spurned numerous requests for investigative assistance.
- 5. An objective fact is that China likes to use the tactic of comparing apples to oranges to draw illogical conclusions. China was quick to describe how large the US cyber force has become in response to the Mandiant report. There is no point or relevancy to addressing size in the issue of Chinese cyber piracy. Size does not indicate criminal intent. Further, China never mentions the overwhelming size of its own force, one that has been involved in illegal operations for years and is likely much larger than the US force since it contains PLA, reserve, militia, and other cyber security forces.
- 6. An objective fact is that China described the Mandiant report as unprofessional, lacking in facts, and lacking a technical basis to draw

³³⁸ Dennis Chong.

its conclusions; yet the report had technical detail, appeared very professionally constructed, and contained numerous facts. In a later Wall Street Journal report, China accused the US of attacking it. First, how could they be so sure since, earlier, Chinese analysts had stated that the Mandiant report had used unreliable ISPs to draw their conclusions? Is the "superior" US unable to use ISPs properly to expose Chinese incursions, while the less capable Chinese (according to their reports) are able to expose supposed US attacks? Second, while accusing the US, the Chinese have failed to produce a report that is even close in detail to that provided in the *Mandiant report*. Again, this demonstrates how poorly thought out their narrative had become and how uncooperative China has become. China wants things understood through their self-contradictory logic that holds the US responsible for attacks, while denying that the "superior" US could use the same logic to hold the Chinese responsible.

- 7. An objective fact is that the Chinese believe the US is unilaterally using cyberattacks to pursue trade protectionism and that this practice will incur the condemnation of the international community.³³⁹ The US is not the only country accusing China of cyberattacks (South Korea, India, Japan, Taiwan, France, Germany, and Canada to name just a few). Only the "non-Chinese-hacked community" (Russia or North Korea?) might concur with this Chinese report, which will thus be limited in scope to China's closest partners. There has been no international condemnation to date. Again, the narrative has failed.
- 8. An objective fact is that China states it "will never act on the offensive side." Again, Chinese open source military writings clearly state that preemption and the active offense are mandatory options in the information age, and that without these capabilities a force will lose the initiative in any cyber war. The PLA's internal writings thus describe an entirely different thought process and narrative. Further, the Chinese only appear to go on a propaganda offensive after the US accuses China of hacking. The Chinese attempted to play the sympathy card after the Mandiant report was released, noting that "we do not point fingers at the

³³⁹ Chu Lei.

^{340 &}quot;1st LD-Writethru-China Focus..."

US based on the above-mentioned findings."³⁴¹ Is this because there wasn't much US activity that required finger-pointing? Another article added that one-sided media accusations jeopardize a cooperative atmosphere in cyberspace.³⁴² Unfortunately, Chinese piracy and their unwillingness to investigate have seriously compromised any atmosphere inviting cooperation. China states that it has established relevant laws and regulations to crack down on hacking, but, unfortunately, they are not following-up on foreign accusations of such activity. After Google accused China of hacking into its systems in 2010, China generated the same response, accusing the US of attacking Chinese systems instead of conducting an investigation.

9. An objective fact is that the PLA has been advertising for hackers for nearly a decade or working with universities to improve its cyber capabilities. The *Washington Post* noted on 20 February 2013 that a Zhejiang University recruitment post in 2004 advertised the opportunity to join China's alleged military hacker team. The notice, as translated into English by *China Digital Times*, follows:

The Graduate School has received notice that Unit 61398 of China's People's Liberation Army (located in Pudong District, Shanghai) seeks to recruit 2003-class computer science graduate students. Students who sign the service contract will receive a 5,000 yuan per year National Defense scholarship. After graduation, students will work in the unit. Interested Zhejiang University 2003-class graduate students should please contact Teacher Peng in the Graduate Division before May 20. (Cao Guangbiao room 108: phone: 87952168). May 13, 2004³⁴³

Thus it is no wonder that foreign news media sources claim that cyber hacking teams are being established in China: several accounts of such

^{341 &}quot;The Chinese Military Side..."

³⁴² Ibid.

³⁴³ For a *Washington Post* screenshot of the post, see http://www.washingtonpost.com/blogs/worldviews/files/2013/02/unit-notic.jpg

internal advertising in China confirm this. For example, *Time* magazine described a PLA hacking contest won by Tan Dailin (aka Withered Rose), who then went on to teach hacking techniques to the PLA. A Reuters.com report in 2013 noted that Shanghai's Jiaotong University's School of Information Security Engineering had ties with PLA Unit 61398. Professors at Jiaotong collaborated with the PLA unit on network security and intrusion detection issues. 344 Shen Weiguang, the father of information warfare in China, developed a curriculum for an Information Security University in 2003 that included information attack and defense tactics 345

- 10. An objective fact is that there are a host of organizations in China that regulate the Internet. There is the PLA, of course, but also numerous cyber militias, reserve groups, and, of course, the Ministry of State Security. The Ministry of Industry and Information Technology is another ministry designed to control the Internet. With this number of organizations dedicated to ensuring the Internet is safe, it is highly doubtful that the Chinese could possibly not be aware of or complicit in the piracy that has occurred. If they believed in cooperation, then these organizations should have investigated international claims of piracy or espionage. Yet they did not.
- 11. An objective fact was the Chinese assertion that the identification of a party in an environment that is transnational, anonymous, and deceptive does not produce a reliable indictment against another nation or group or individual. 346 A professor at China's National Defense University stated that it is technically infeasible to identify the exact location of hackers, ³⁴⁷ while an engineer at Cina Yuntu Media Company, Ltd. said that it is impossible to locate physical addresses of attackers, and that IP addresses could be simulated or transferred. 348 A

³⁴⁴ Melanie Lee, "Top China College in Focus with Ties to Army's Cyber-Spying Unit," Reuters.com, March 23 2013.

³⁴⁵ Shen Weiguang, *Deciphering information Security*, Xinhua Publishing House, 2003,

p. 200.

346 "The Chinese Military Side Continues to Refute False Accusations on 'Cyber 20 February 2013 Attacks'," Xinhua Domestic Service, 20 February 2013.

³⁴⁷ CNTV (in English), 20 February 2013.

³⁴⁸ CNTV (in English), 20 February 2013.

Xinhua report stated that hackers exploit botnets in other parts of the world as proxies for their attacks, not their own computers, as the *Mandiant report* implies. Mandiant's findings, along with those of numerous other countries, argue otherwise. Specific people and their blogs or Internet postings were examined and described. Others were also uncovered but, due to the sensitivity of the findings, were not listed. Thus anonymity is of concern but it does not guarantee 100 percent protection. Hackers and pirates can be uncovered. And, as noted earlier, this Chinese assertion of anonymity hasn't prevented the Chinese from accusing the US of being behind cyber attacks on its systems.

12. Finally, an objective fact is that China asserts the US is behind countless cyber attacks on China. The question US analysts should pose is this: where in China are the equivalents of the wideranging Chinese attacks on US industry and the military (Pentagon, Lockheed Martin, RSA, Google, Northup Grumman, etc.)? There have been no accusations of this kind, indicating they don't exist. Again, the Chinese counterpropaganda comes up short.

Data piracy on the scale reported by Mandiant is a threat not only to US national security but also to our economy. In the latter case, it can result in the loss of jobs or put US companies at a competitive disadvantage. The US response to these activities has been along multiple axes that, to date, have been ineffective in stopping the Chinese data theft onslaught. A new approach should be considered, and the discussion above has offered one alternate approach to the problem.

The *Mandiant security report* indicated the depth of the problem in dealing with a Chinese entity that will do all it can in peacetime to achieve a strategic advantage and perhaps even impose cyber deterrence via a cyber show of force. The US will have to act decisively in the coming days if it is to achieve its goal of deterring Chinese attacks, who have no reason to stop their data piracy as long as the US response is limited to more requests for dialogue. Meanwhile, China is ratcheting up

³⁴⁹ "Hacking Allegations against China both Baseless and Revealing," Xinhua (in English), 20 February 2013.

its capabilities in an area even more serious than cyber, one that many countries, to include the US, are studying—quantum computing.

Quantum Computing

Richard Meyers leads a project at the US Army Research Laboratory that involves data teleportation, perhaps the future follow-on to cyber issues. The following explanation represents the essence of why quantum communication and quantum computers, in Meyer's opinion, represent the future: they allow messages to be sent that cannot be intercepted.

Consider a future battlefield with a Soldier, an unmanned aerial vehicle, a command and control element, and access to a satellite. 'If you put entangled atoms at each of these locations and they're moving around, then you can teleport data between the Soldier and the satellite ...you can teleport to UAVs ... you can teleport to command and control headquarters,' Meyers said. 'We think it's going to be the future for military communications. Now the strategic impact. It's possible to get information out of your location without others getting it. This is a whole new technology that will one day be common.' 350

Currently the science of quantum teleportation "guarantees" the safe transmission of data from one site to another. Not coincidentally, this is another area where the PLA and Chinese civilians hope to gain a strategic advantage, through the development of their own homegrown quantum technology. China is currently researching this technology. Even though it is presently underdeveloped, it is still likely that it has made it on the PLA and academic watch lists as science and technology factors that will soon change the global environment.

³⁵⁰ David McNally, citing Richard Meyers in "Army Researchers Seek Secure Quantum Communications," 28 November 2012 at

http://www.army.mil/article/91959/Army_researchers-seek-secure-quantum-communicat...

The PLA reports that the University of National Defense Science and Technology has been conducting quantum information technology research since the 1990s. One report cited a quantum computing laboratory that conducted a test with a laser frequency stabilizer.³⁵¹ The PLA has clearly taken an interest in quantum communications, since other PLA institutions are also studying the topic. For example, the PLA's University of Science and Technology (PLAUST) reportedly opened eleven new research areas in 2011, to include quantum communication technology. 352 China's Academy of Space Technology (CAST) has started preparatory work to establish China's first quantum remote-sensing laboratory. The aerospace community believes that remote sensing is an important area for the application of quantum information technology. Quantum information technology has been designated as one of the four key areas of scientific research in the next fifteen years.³⁵³ Other Chinese reports on the expanded use of quantum information discussed topics such as quantum science projects and quantum mechanics experiments in space. 354

China's civilians consider the nation as number two in the world in terms of research and development spending. China has conducted original research in quantum communications that has had an international impact. State Councilor and CPC Central Committee Political Bureau member Liu Yandong noted in 2011 that quantum communications have made "fresh contributions to scientific development." In 2012 she stated that quantum communication technology has important strategic significance in ensuring the safety of state information. More importantly, she made these remarks while

³⁵¹ He Shuyuan, Chen Ming, Li Zhi, and Qiao Tianfu, "Join Forces and Pool Wisdom to Forge National-Defense Equipment and Facilities..." *Jiefangjun Bao* Online, 26 July 2011, p. 8.

³⁵² Yang Zhijun, Yang Daichen, and Ma Shengwei, "PLA UST Promotes Integrated Development of Interdisciplinary Research," *Jiefangjun Bao* Online, 11 October 2011. ³⁵³ *Zhongguo Hangtian Bao* Online, 25 July 2012.

³⁵⁴ See, for example, "China's Space Activities in 2011," *Xinhua* (in English), 29 December 2011.

³⁵⁵ Stephen Chen, "Science Chief Wants to See China Lead the Way in Scientific Breakthroughs," *South China Morning Post* Online (in English), 25 November 2012. ³⁵⁶ Liu Yandong, "Striving to Break New Ground in Fundamental Research," *Qiushi* Online, 1 August 2011, No. 15.

attending a ceremony to launch the financial information quantum communication verification network.³⁵⁷ With such high-level cover, it is not a surprise that China's rapid science and technology development has been tied to quantum information, as well as neutrino oscillation, nanotechnology, and stem cell studies, among others.³⁵⁸

Chinese scientists state that they have made the first experimental observation of the quantum anomalous hall (QAH) effect. The discovery, still a long way from practical application, is thought to enhance the information technology revolution through the development of low-power-consumption electronics. The QAH effect "describes how a voltage appears at both semiconductor edges when the electrons on a current-carrying semiconductor experience a force while being kept in a magnetic field."³⁵⁹

Conclusions

The US must confront Chinese reconnaissance efforts that attempt to establish a cyber strategic advantage that could lead to the imposition of system sabotage and cyber deterrence concepts against us. These reconnaissance efforts have been concerns of the US for the past several years. In the meantime, the Chinese have been discussing the advantages of cyber-related reconnaissance scenarios. For example, nearly thirteen years ago Chinese Colonels Qiao Liang and Wang Xiangsui wrote *Unrestricted Warfare*. What is of concern today is a scenario the authors proposed in 1999:

If the attacking side secretly musters large amounts of capital without the enemy nations being aware of this at all and launches a sneak attack against its financial markets, then after causing a financial crisis, buries a computer virus and hacker detachment in the opponent's computer system in advance, while at the same time

³⁵⁷ Xinhua Domestic Service, 21 February 2012.

³⁵⁸ Cheng Yingqi, "Tianjin Meeting a Hotbed of Scientific Exchange," *China Daily* Online (in English), 18 September 2012.

³⁵⁹ "Chinese Scientists Observe IT-Advancing Phenomenon," *Xinhua* (in English), 10 April 2013.

carrying out a network attack against the enemy...so that the civilian electricity network, traffic dispatching network, financial transaction network, telephone communications network, and mass media network are completely paralyzed, this will cause the enemy nation to fall into social panic, street riots, and a political crisis.³⁶⁰

Unfortunately the PLA, whether by design or circumstance, could be putting elements of a broad cyber strategy into place that closely resembles the colonels' scenario. The *Mandiant report* identified a host of industries that had been under cyber siege. These included financial services and infrastructure organizations, two key elements of the colonels' scenario. Attacks on the *New York Times* and *Wall Street Journal* in recent months could indicate attempts to reconnoiter media outlets. What US analysts should be considering is the question of "where, in such a series of steps, is China currently positioned" if this scenario or elements of it are being utilized?

To see cyber as the Chinese see cyber, one must remember the basics of the factors enumerated above. An evaluation of cyber's objective factors is essential. Once these factors are established, US analysts must consider how a Chinese specialist would conduct a subjective evaluation for the manipulation of these factors. It is here where thinking is as important as technology. Only then can counters be developed according to this theoretical process. Three steps in the Chinese process were highlighted as areas of concern for US cyber security:

1. China gain information through hopes to reconnaissance of an opponent's cyber system, and manipulate or influence an opponent's perceptions and technology to establish a strategic advantage. This can include the placement of viruses or Trojan Horses systems, as well as uncovering vulnerabilities, thus enabling the PLA to be in a

³⁶⁰ Qiao and Wang, p. 123.

- position to "win victory before the first battle" if cyber warfare erupts.
- 2. China realizes that, at the appropriate time when in a state of crisis requiring a strategic advantage and preemption, reconnaissance will have enabled the conduct of system sabotage.
- 3. China thus can render a potential foe's information technology systems impotent or, after exposing all known weaknesses in such a system, use the resulting advantage to establish a cyber offensive deterrence advantage over that particular foe. That is, reconnaissance and the revelation of key nodes or devices can deter, a development not as noteworthy in the nuclear era.

Once a digital cyber strategic advantage is established, control over a potential enemy's digital systems could follow along with the ability to deter an opponent. If China is able to find vulnerabilities in another nation's cyber geography and capture or neutralize strategic information resources, then it holds the upper hand. As a developing cyber power China has attained, according to US sources, the capability to procure terabytes of information from foreign nations' information systems via reconnaissance probes. Currently there is no incentive for the Chinese to stop hacking. An examination of China's strategic thought process and paradigm could help develop appropriate counterincentives.

The US should change the objective conditions that China uses to justify to itself the right to conduct extensive reconnaissance activities. The US appears to have taken a step in the direction of a hard power response with the report that the Pentagon plans to add thirteen offensive cyber teams to its Cyber Command and another twenty-seven to support war fighting commands or to protect computer systems and data. Other options advanced by US analysts include the development of alternate networks that are not accessible to the Chinese, the use of deceptive measures to expose Chinese complicity (honeypots, etc.), or

³⁶¹ Richard Lardner, "Pentagon Forming Cyber Squads to Prevent Attacks," *The Kansas City Star*, 13 March 2013, p. A10.

the mobilization of a strong international response to China's cyber activities, since so many nations have been affected by Chinese cyber activities. These and similar items would help to undercut the objective conditions on which the PLA currently relies. China's current evaluation of these factors, since their activities have not significantly changed, does not favor Chinese piracy stopping anytime soon.

In conclusion, this theoretical view of a Chinese strategic thought process that produces cyber options offers one way of thinking about the why behind China's cyber activities as well as the how they do it. It is well-past the time to limit Chinese access to US systems. Understanding their strategic thought process could help change "what China sees" and "why they do it." US analysts need to consider such a perspective if they are to comprehend what drives the Chinese to act. Another area requiring closer scrutiny, it appears, is Chinese military literature, based on the *Mandiant report's* revelation of PLA Unit 61398 as a key source of many attacks. There is no secret PLA cyber formula. They write openly about system sabotage, offensive cyber operations, the use of soft force, and other such issues as well as their implementation via the use of stratagems. One simply needs to follow the Chinese way of thinking to understand why they will not stop, despite repeated warnings.

Finally, strategy, so as not to forget the ultimate utilization of the objective-subjective thought process, involves getting a cyber specialist to do something he believes he is doing for himself when actually he is doing something for a Chinese hacker (if one is to believe that the PLA and others in China have applied Maoist thought to cyber). US analysts and cyber specialists should keep this Chinese concept at the fore of their analytical thoughts when investigating or when confronted with Chinese cyber incursions. The PLA has attained enough of an advantage already via reconnaissance activities without us inadvertently helping them further by not understanding their concept of strategy and its ultimate goal.

CHAPTER SEVEN: GEOTHINKING LIKE THE CHINESE: A POTENTIAL EXPLANATION OF CHINA'S GEOSTRATEGY

Introduction

China's number of perceived "national interests" and strategic orientations continue to grow. Internationally they can be found in new initiatives to develop the Panama Canal; in developing the cyber infrastructure or oil fields of Africa; in dominating the business environment of Singapore; in exploring more arms sales with Venezuela; or in the exploration of space, the new "high ground" (along with the cyber or information domain) in China's estimation. Closer to home, China's focus remains fixed on the geographic entities of the South China Sea, the Senkaku Islands, Taiwan, the border between Xinjiang and Central Asia/Afghanistan, and contested parts of India. There are varying reasons for these interests, some internal (social stability), some external (new avenues for commerce or energy supplies), and some that are both (national security concerns).

The strategic thought process behind these geographical focal points is unlike those utilized in the US and other areas of the West, where the concept of ends, ways, and means dominates much of our understanding of strategy. China's strategic thought process is different. It is by design and history much more comprehensive and diverse. More importantly, underlying this evolved concept of strategy are three components or subthemes: *shi*, stratagems, and an objective-subjective thought process, all of which receive scant attention in the West in reference to "strategy." Each has been described in detail in the preceding chapters.

The explanation that follows is descriptive and meant to be thought-provoking. It is not proposed here that they represent a definitive solution to understanding Chinese geostrategy, but rather that they offer alternate methods through which to examine Chinese strategy (and better develop counters to confront China's strategic moves). Chinese military and civilian journals are used in the analysis.

After defining China's strategic components the paper then proceeds to look at China's concept of national interests (and their

protection and advancement) and China's concept of the objective environment (instead of the "operational environment" descriptor of the US military). Finally, the paper uses the strategic definitions and focus on national interests and objective reality to better understand some potential Chinese strategic guidance. China's external and internal strategic resource strategy is based on its needs and capabilities. Two truncated case studies are considered: the nation's external need for oil (focusing on oil interests in Africa and its transport through the South China Sea) and China's internal abundant supply of rare-earth elements. The geostrategies associated with these external and internal strategic resources are quite different. The paper concludes with an assessment of China's needs and capabilities versus the resource strategy it has developed. In short, the conclusion is an assessment of China's geostrategic plan.

This analysis doesn't portend to look at Chinese strategic policy, decision-making, military planning, and so on through "blue" glasses, i.e., templating these processes via US patterns. Rather, this is an attempt to get into the Chinese mind-set.

Defining Geostrategy

Chinese senior captain Xu Qi, a deputy director of the Strategic Research Office of the Navy's Military Academic Research Institute at the time this article appeared in 2004 in *China Military Science*, offered a definition and description of geostrategy. He wrote that geostrategy is "the state's strategy for seeking and safeguarding national interests in the realm of foreign relations." Further he noted that geostrategy makes "use of geopolitical relations and the rules governing such relations in the international realm" and takes "state-to-state geopolitical relations as the object of research, such geopolitical elements as the geographical position, the comprehensive national strength, and the distance in space..." "Distance in space" issues refers to the fact that interests decrease as space increases, while the shorter the space distance, the more serious the threat to national interests. Geopolitical factors and the

Xu Qi, "Sea Geostrategy and the Development of the Chinese Navy in the Early 21st Century," *China Military Science*, No. 4 2004, pp. 75-81.
 Ibid

geographical factor are the two basic elements of geostrategy in Xu's opinion. The former is changeable while the latter, due to environment and position, is more stable.

After the early exploration period of the 15th century China closed off its borders to the outside world. Survival became rooted in control of land space and not the sea. As a result geostrategic thought ignored the sea for years. In many ways this was understandable, since there were no sea powers that threatened China. For the mainland, the seas along its extensive border served as a shield and guardian of the mainland. Today, China sees a historic opportunity to develop its maritime geostrategy due to the extensive change in the international situation after 9/11 and to new maritime geo-security threats to China's coastal areas. 364 Xu notes that "for China, a country with the greatest population in the world and with relatively scarce resources, the seas provide the most important strategic space for the country's sustainable development and also represent the strategic substitute zone of its land resources."365 The seas will promote China's future development and the Navy must develop its capabilities to defend the nation's sea territory. With regard to defending national interests in the information-age, Xu wrote:

The use of informationized advanced weapons, space weapons, and new concept weapons will make it possible to launch multi-dimensional precision attacks from a broad scope stretching from the first island chain to the high seas, thus threatening the important political, economic, and military targets in the deep strategic rear areas. As threats to maritime security will come from the distant open seas, the Navy is required to broaden its vision to the open seas, develop its attack force for fighting in exterior lines, and set up necessary shields for the long-term development of national interests. 366

³⁶⁴ Ibid.

³⁶⁵ Ibid.

³⁶⁶ Ibid.

Xu adds that marine space, air space, and outer space, also known as grand strategic or public space, belongs to no country. International waters, according to his calculations, occupy 64 percent of the total oceanic space on earth. China aims to take part in the management and protection of the resources therein. Interestingly, he states that China "has extensive national interests in the 'international waters' and the 'international voyage straits." This is based on transportation routes and the fact that China is the fifth largest investor in the international seafloor zone. National interests will extend to all parts of the world's marine space where the Chinese economy is involved. This requires naval safeguards of such interests.

China's geographic location is in a part of the world where the geostrategic interests of many of the world's big powers collide. Each nation has a different method for solving its interests and the path it takes is reflected in its national security strategy. While not defining geostrategy directly, one authoritative Chinese military strategy reference book states that a geostrategic relationship between states means

strategic relations relevant to the interests between related states formed on the basis of national geography and geocircumstances, such as geopolitical relationships, geomilitary relationships, and so on. These relationships play a basic role in national security and development and are important elements to influence and restrict war and strategy.³⁶⁸

Two classes of elements make up a geostrategic relationship: natural geographic elements (a state's geographic position, size and shape of its territory, natural resources, capital, national frontiers, and boundaries, etc.); and a state's comprehensive power, which includes its economy, scientific research, and technology; culture and the military; the organic

³⁶⁷ Ibid

³⁶⁸ Peng Guanqian and Yao Youzhi, *The Science of Military Strategy*, Military Science Publishing House (English Edition), p. 62. The English translation of the book, published by the Chinese, appeared in 2005.

structure and distribution of manpower resources; the structure of nationalities, religions, and social forces; a state's position on its role in the international community; and the characteristics of its foreign policy, among other issues.³⁶⁹

Natural resources (in the case of this chapter, strategic resources) are a focal point of the analysis. These resources are the objective conditions on which the existence and development of a state depend. They include regenerative resources (land, water, biology, etc.) and non-regenerative resources (mineral resources, fuel, etc.). This chapter focuses on the latter area.

Chinese National Interests

National interests "both **objectively** exist and are to a very great extent determined by **subjective** judgments." ³⁷¹

National interests open the second chapter ("Determinants of Strategy") of the 2005 English edition (Chinese original was written in 2001) of the book *The Science of Military Strategy*. Authors Peng and Yao state that strategy manifests itself in the war conductors' activities of subjective guidance. Further, strategy is based on given objective physical conditions that are restricted by social modes of production and conditions of history. Many objective physical conditions are manifested in the form of national interests.

National strategy is based on national interests with the latter serving as the start point for strategic guidance. A national interest is defined as "an aggregate of objective physical and spiritual requirements on whose existence and development a state depends. National interest is the cardinal basis to determine the alignment of a state's military strategy

³⁶⁹ Ibid.

³⁷⁰ Ibid., p. 64.

³⁷¹ Li Ying, interview with Zhu Feng, "China's Core Interests are not Suitable for Expansion," *Guoji Xianqu Daobao Online*, 10 January 2011. The explanation of China's national interests provided here is presented in a year by year format. The time frame is the past decade.

as well as the starting point and also the destination of its national military strategic guidance."³⁷² Two national interest classes exist: national interests of existence and national interests of development. Interests include national territory, national security, national sovereignty, national development, national stability, and national dignity. National territory concerns resources and living space. National security includes information, energy, military affairs, and so on. Sovereignty is a state's "inherent power to have legal supremacy internally and independence externally."³⁷⁴ National stability refers to a state's maintenance of normalcy and orderliness, and national dignity is a state's deserved status and prestige in the international community. ³⁷⁵

However, national development is perhaps the area where China's geostrategic interests are most prominently emphasized. This dynamic component refers to a state's economic prosperity, science and technology progress, and improvements in people's living standards. Thus, searches for new markets and for oil and gas would fit this aspect of national interests. Chinese living standards are measured against those of other nations and with past calculations of China's comprehensive national power, especially those measured on the basis of economic prosperity and overall national strength. Some developmental national interests are fundamental while others are long-term. On occasion, China may find commonality or an antagonism of interests with another state. In the latter case, when compromise is not possible, war can break out.

Spearheading developmental interests in the field of strategic resources is the China Development Bank. This bank is directly responsible to the State Council of China and is China's only bank whose governor is a full minister. The bank uses energy-type loans to ensure that China's energy needs are met and resourced properly. Such loans help integrate government policies with private objectives, that is, companies make money while the government pursues its core and national interests. In any case, China Development Bank is an institute

³⁷² Peng and Yao, p. 39.

³⁷³ Ibid., pp. 39-40.

³⁷⁴ Ibid., p. 40.

³⁷⁵ Ibid., pp. 42-43.

³⁷⁶ Ibid., p. 42.

that should bear intense future scrutiny as a means for pursuing strategic resources. The bank likely will play a very important role in China's energy strategy.

Peng and Yao write that Chinese national interests are in conformity with the interests of the proletariat or general mass of people. A national interest must answer the question "what is to be protected or gained?" From this analogy China's leaders rationalize efforts to attain oil and gas and other geostrategic resources "for the good of the masses." The focus of geostrategy, they write, should be on long-term interests instead of immediate ones. Today, however, China's leaders must focus on both long and short-term interests simultaneously. It is important, therefore, to find China's core national interests because they will offer principal clues for the detection of geostrategic plans.

In 2005 Major General Ma Ping, the Deputy Director of the Strategic Studies Department of China's National Defense University (NDU), wrote an excellent article on national interests and strategy. Ma stated that national interests are the starting point for strategic planning. Clearly defined national interests help determine objectives to defend and areas to keep under observation in case threats might emerge. National interests can also help sort out potential strategic partners and opponents. National interests can be divided into core interests, major interests, and general interests. Core interests are vital interests. They include sovereign independence, territorial integrity, system security, and non-endangerment of economic lifelines. A major interest includes the unimpeded channel for the acquisition and transport of resources overseas. This latter category could be the basis for China considering the South China Sea (a separate section on this area appears later in this paper) to be a core interest. Ma makes the case that major interests, due to contemporary conditions (i.e., China's need for oil), can migrate to the core interest category.³⁷⁹ In the recent past, in both open publications and

³⁷⁷ Ibid., p. 44.

³⁷⁸ Ibid., pp. 46-49.

³⁷⁹ Ma Ping, "National Interests and National Security," *China Military Science*, No. 6 2005, pp. 61-72.

in private conversations, the Chinese have stated that the South China Sea has now become a core interest. As Ma notes:

Our per capita resource reserve levels are low to begin with; with a population of 1.3 billion and growth rates in excess of 9%, reliance on domestic resources alone would make it difficult to support economic development, thus our dependence on foreign resources is constantly rising. At present, we depend on foreign sources for 40% of our oil. If we continue to grow at this rate, by 2010, that figure could reach 60%. Foreign dependence on other major mineral resources will also increase. By 2010, foreign dependence for iron, copper, and aluminum could reach 57%, 70%, and 80%, respectively. It can be said that the ability to securely obtain foreign resources has already begun to have lifeline significance for China's economic development. 380

Ma notes that a nation must be militarily secure if it is going to be able to protect its national interests. A nation must be able to win wars it fights, form a strategic deterrent or counter-deterrent to an opponent's deterrence capabilities, and develop an advantage in forces or at least attain a balance of power with respect to one's opponents. These developments to ensure military security primarily are concerned with core and major interests.

Developments in this age of military transformations are also faced not only with severe challenges but also with strategic opportunities. One of the most important challenges that must be overcome is the ability to create advantageous situations (*shi*) on China's periphery in order to properly react, reduce, or resolve external military pressures. Simultaneously, a strategic opportunity has presented itself to China in the fact that China can build up its military potential and thereby develop new capabilities in the absence of conflict.³⁸¹

³⁸⁰ Ibid.

³⁸¹ Ibid.

With regard to stratagems, Ma recommends using concepts such as "feigning" and "making noise" in order to allow opponents to sense one's deterrence capabilities and determination. An opponent must be made aware of one's actual strengths and determination to use them when necessary. The credibility of one's deterrence capability is important to develop as well as the mechanisms under which deterrence functions best and is brought to true effect. With the appropriate timing and means, military deterrence can, in effect, "subdue the other army without fighting." At all times it is important to maintain flexibility, applicability, and initiative. 383

In 2006 author Wang Guifang discussed in a general fashion a breakout of the topic of national interests, also in *China Military Science*. Wang wrote that preserving national interests is the explicit strategic objective of China's general strategy and foreign policy. Security, he notes, is an objective condition in which the nation is free from danger, and, at the same time, it is a subjective feeling in people's minds. Security has allowed China to become more objective and rational in understanding its national interests. For China national interests are the start point and purpose of the country's national security strategy, whose core objective is economic development. Wang divides national interests into three levels: core interests, principal interests, and general interests. The description of each interest group correlates well with Ma's description of core, major, and general interests. Core interests, Wang notes, require not only economic strength but also military strength. Objectively, however, there is a generation gap between China's military strength and that of the world's advanced nations.³⁸⁴

Wang writes that China's national interests have become broader and now can be affected by the entire international situation. The nation must continuously reassess the importance and relevancy of these interests and also the policies of major powers toward China. An assessment of these policies leads China to formulate different policies in

³⁸² Ibid.

³⁸³ Ibid.

³⁸⁴ Wang Guifang, "National Interests and Choices of China's Security Strategy," *China Military Science*, No. 1 2006, pp. 76-83.

response. The most important responses are directed at the major powers and at the regional/peripheral geographical special environment around China, which has the most direct impact on its policies. Luckily the globalization process, in Wang's opinion, has restricted the objective conditions for confrontation and, instead, opened a strategic opportunity for attaining interests through political and economic cooperative means. He implies the use of stratagems against major powers when he invokes the following resolve: update the rules of the game, adapt ourselves and learn the skill of implementing the competition mechanism, master the art of struggle, prudently make selections, prevent and mitigate possible crises, and achieve a new political balance. Further, do not fall into the trap of so-called "democracy." 385

In 2006 noted Chinese strategist Li Jijun made several of the same points as the other authors. He noted that national interests are the starting point and objective of military strategic thinking and that the economy determines national interests. Strategic thinking, to Li, includes the processes of comparison, judgment, selection, decision-making, implementation, feedback, modification, summarization, and sublimation in the minds of those who command a war. He added that the ocean is the hope for China's future development and the nation's long-term interests; and that the confrontation of military strategies is not limited to the military domain but extends to the political, economic, scientific, technological, cultural, diplomatic and resource domains as well. ³⁸⁶

Li used the objective-subjective and stratagem issues to buttress his arguments regarding strategic thinking. He stated that winning victories on an objective material foundation is stressed, while the outcome of a war is often determined by the subjective guiding capabilities of the two sides in a war. The objective conditions can change from the time before a plan is made to the time after which it is established. The objective condition must be continually monitored for its methodological significance if one is to resolve contradictions

³⁸⁵ Ibid.

³⁸⁶ Li Jijun, "Military Strategic Thinking and Scientific Decision-Making," *China Military Science*, No. 1 2006, pp. 28-38.

between it and subjective guidance.³⁸⁷ Li then notes that the ancient Chinese emphasized the use of stratagems and that countermeasure-oriented thought today still utilizes stratagems. Stratagems require innovative thought. The latter is the negation of fixed models and conventions. It puts new discoveries into play, and these discoveries are what enhances and propels the art of war. Stratagems often employ the use of uncertainties and surprise or the use of unconventional actions, such as mixing fake actions with real ones. Li adds that the use of uncertainties is a conscious act that uses stratagems. Their use can resolve a dispute in the early stage of a confrontation and before the situation becomes too heated.³⁸⁸ This kind of diplomatic, political, or economic use of stratagem should be considered by US analysts as they ponder Chinese moves in the South China Sea.

The abstract of Kang Wuchao's 2007 article, "Analysis of National Interests and Strategic Orientation," begins with the sentence "The determination of strategic orientation is the result of the composite effects of various subjective and objective factors." This focus underscores the ties of subjective and objective thinking not only to strategy but also to national interests. Kang states that national interests determine the selection of China's strategic orientation. He lists three factors that help determine national interests. First, territorial integrity and sovereignty are the most important factors. Second, geographic strategic interests have been growing in importance. They determine strategic orientation based on a country's goals for future growth beyond its borders. Finally, the integration of the two issues (territorial security and geographic strategic interests) reflects strategic orientation. Kang states that this concept of integration was exemplified at the beginning of the 1950s, when China decided to fight alongside North Korea against the US. China has half of its heavy industry in the northeast (territorial security) and the Korean Peninsula is a springboard for landing on mainland China. In a more contemporary example, Taiwan is viewed as

³⁸⁷ Ibid.

³⁸⁸ Ibid

³⁸⁹ Kang Wuchao, "Analysis of National Interests and Strategic Orientation," *China Military Science*, No. 2 2007, pp. 84-90.

a focal point for China's sovereign, political, economic, and military interests.³⁹⁰

A 2009 article in *China Military Science* by Huang Yingxu and Li Ming offered the view of two military officers on the Communist Party of China's views on national interests. National interests, they note, determine political doctrine, guidelines for action, strategy, and class or political group policies. The authors note that Mao had a vision of permanent interests that corresponded to the nation's interests. National interests must embody the common interests of the Chinese people. They sit above class and special interests. The common interests of the people of China can be found in the development of social productive forces that offer a rise in living standards. Chinese strategy in all of its forms (political, military, diplomatic, and developmental) must take this common interest as its ultimate goal, according to Huang and Li.³⁹¹

Over time, the authors add, each leader of China not only has stressed the same key items, but they have also expanded on these items in accord with contemporary developments. Core interests remain national sovereignty and security. Mao was the leader who put state sovereignty, security, and territorial integrity above all else. Deng Xiaoping, Jiang Zemin, and Hu Jintao have added economic development, comprehensive power, and developmental interests, respectively, to this list. Deng Xiaoping stated that "national rights are more important than human rights." Jiang focused on the security of strategic materials such as food and oil, as well as on information and financial security. Hu has expanded the list to include the "developmental interests" of maritime, space, and electromagnetic space issues, among others. Hinally, the authors state that to confront "hegemonism and power politics" China must increase its economic and military power.

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³⁹⁰ Kang.

³⁹¹ Huang Yingxu and Li Ming, "On CPC Members' Outlook on National Interests," *China Military Science*, No. 6 2009, pp. 1-11.

³⁹² Ibid.

³⁹³ Ibid.

³⁹⁴ Ibid.

In another 2009 article Senior Colonel Wang Guifang was a research fellow at the Department of War Theory and Strategy Research at the Academy of Military Science when he wrote on national interests some three years after his first article appeared. He noted that, broadly speaking, there are two types of interests: security and developmental. National security interests are the most important element of national interests. They have always maintained an objective existence. However, as society changes, so too does the objective environment and, thus, the content of national interests. Guifang focused special attention on developmental interests, noting that:

Judging from its composition, national security interests not only include traditional military security interests and political security interests, but also include a broader range of content, including economic security interests, cultural security interests, information security interests, ecological security interests, environmental security interests, and space security interests that have become increasingly pronounced in recent years. ³⁹⁶

Guifang added that core interests remain state sovereignty, territorial integrity, national unity, political stability, and national survival. In times of developmental interests, energy resource security interests and others are increasing. Perhaps this idea has been expressed most explicitly in recent conversations with Chinese officials, who have stated that the South China Sea area has become a core interest. In terms of geological space, Guifang notes that "sea space is more important than land space." ³⁹⁷

³⁹⁵ Wang Guifang, "An Analysis of Basic Features of and Actualized Approaches to the Development of China's Security Interests," *China Military Science*, No. 6 2009, pp. 20-25.

³⁹⁶ Ibid.

³⁹⁷ Ibid.

In 2010 Zhang Xiaotian discussed the demands that national interests place on strategy. Even though only a major, his article was placed first in the No. 3, 2010 issue of the journal *China Military Science*. Zhang defined national interests as "the objective material demand and the spiritual demand that a country relies on for survival and development. It is the starting point and the destination of a country's various acts." There are three levels of national interest: core, key, and general. Core interests are fundamental interests bearing on a country's survival, security, and development. Core interests affect military strategic orientations. Key interests include a country's economic development and the security of its communication channels, energy supplies, and regional interests. General interests include citizen safety, enterprise development, ecological security, and so on. General interests have the least impact on military strategy.

There must be a balance between a country's strategic capabilities and the expansion of a country's national interests. Perhaps one can assume from this statement that China's new military capabilities are a result of its expanded set of national interests. One cannot get ahead of the other. Alo National interests are a primary cause of war, according to Zhang. They determine a country's strategic intentions; are one of the five causes of war (fame, interests, evil doings, internal turmoil, and hunger); are the essential basis for distinguishing friend from foe; and impact the entire course of a war's development (its scale, intensity, length, and use of strategic weapons). National interests are the start point and destination of strategic guidance since they determine strategic situations and strategic intent. The ultimate goal of strategy is to defend or seize national interests.

These interests change, however, over time and military strategy changes with them. There are four causes for changes to national interests: developments in science and technology that result in an expanded area of reach for national interests; the rise and fall of a

³⁹⁸ Zhang Xiaotian, "New Demands Imposed by National Interests Expansion upon Innovative Development of Military Strategies," *China Military Science*, No. 3 2010,

pp. 1-7. ³⁹⁹ Ibid.

⁴⁰⁰ Ibid.

country's strength and status; changes in subjective cognition that alter the scope of national interests (based on a new understanding of the world whose direction and actions constantly change); and differing interpretations of international rules, regulations, and laws. Due to China's increased status and strength, the rest of the world should expect a sudden expansion of China's national interests, in Zhang's opinion. ⁴⁰¹ This expansion does seem to be underway.

The expansion of national interests results in increased demands for strategic capabilities. Perhaps this is why the world is witnessing the rapid expansion of China's military force, especially its air, sea, and space components, along with strategic countermeasures. National interests also influence the adjustment of strategic deployments. What all of this implies, Zhang notes, is that military strategy must continually adapt to the growing impact of the expansion of national interests in China. The country's leaders insist that development will pursue a peace-keeping resolution, insist on cooperation and win-win outcomes, play a constructive role in regional and world development, and not aim at territorial and influence expansion. This sounds like (but is not) a kind and humane approach to world affairs. He states:

The development of China's national interests at the new stage in the new century is fundamentally different from the expansion of interests by Western big powers in history, and this difference is seen in such areas as the objectives, means, ways, and processes, as well as the impact produced. The factors that determine this difference not only include the influence of the objective strategic environment but also the results of subjective strategic choices.⁴⁰⁴

⁴⁰¹ Ibid

 $^{^{402}}$ Ibid. Countermeasures may include the development of aircraft carriers, satellites, and other means.

⁴⁰³ Zhang.

⁴⁰⁴ Fan Zhen Jiang and Ma Bao An, *On Military Strategy*, National Defense University Press, 2007, p. 59.

However, all of these points are contestable, the latter two particularly so. China is implementing regional development in countries that ignore basic human rights or democratic rule. Simultaneously, the Chinese label the US as a hegemonic power bent on world domination using colonial methods of enslavement, an analysis that totally ignores the US's peacekeeping work, food supplies to needy nations, and countless other humanitarian acts. It also ignores China's own history of bloody slaughter during the Cultural Revolution, problems with its own work force, and an unwillingness to recognize its own support of regimes that ignore basic human rights. The Chinese suggestion that the state rejects the use of influence is equally as contestable, since the use of soft power is a growing Chinese preoccupation, one based on public relations and the spread of China's cultural influence worldwide.

It should thus be expected that the greatest period of Chinese expansion may occur in the next ten years. They perceive a current window of opportunity of which to take advantage. The expansion of national interests expands national strategic interests and the space in which the leadership can maneuver. For example, China is building logistical bases abroad, such as a port in Gwadar, Pakistan. Military tasks now include safeguarding opportunities for strategic development and safeguarding national interests worldwide. On the other hand, with an expansion in the number of partners working with China (for example, in the Shanghai Cooperation Organization or SCO), relations with other nations are more complex than ever before.

In early 2011 Zhu Feng, the deputy director of the Center for International Strategic Studies of Beijing University, was interviewed online by Li Ying about China's core interests. He stated that he agreed with State Councilor Dai Bingguo's assessment that China's core interests are to maintain its social system and national security, to maintain China's national sovereignty and territorial integrity, and to maintain steady economic and social development. Development, Zhu noted, meant achieving secure supplies of energy and resources.

⁴⁰⁵ Zhang Xiaotian, "New Demands Imposed by National Interests Expansion upon Innovative Development of Military Strategies," *Guofang (National Defense)*, January 2010, pp. 14-16.

Zhu recommends a larger role for China's foreign ministry and public opinion organs. He further notes that China must use proper language and behavior and avoid "talking to ourselves and playing with ourselves" via simply trying to attain the moral high ground and repeating melancholy stances. That is, public opinion must be used to buttress support for strategic interests. Reporter Li Ying, in his introduction to his interview with Zhu, noted that national interests "both objectively exist and are to a very great extent determined by subjective judgments."

China's Strategic/Objective Environment

The relationship between the strategic environment and military strategy is a relationship between **objective** reality and **subjective** guidance.⁴⁰⁷

Before examining China's strategic resource theory it is perhaps timely to spend a few minutes looking at China's objective environment in which strategic resources are postulated and developed. The opening quote to this section is taken from the opening paragraph of a chapter titled "The Objective Environment of Military Strategy" in the 2007 PLA book edited by Fan and Ma, *On Military Strategy*. It once again underscores the close link between strategy and China's objective-subjective thought process. Key factors in the international strategic environment (political, economic, military science and technology, geography, etc.) provide the objective factors that determine the basic direction for building and wielding military force. The proper assessment of the international strategic environment is the prerequisite for formulating military strategy. Characteristics of the times (i.e., science and technology advances that influence the shape of war), the world's strategic structure (balance of power, demand for resources), and

⁴⁰⁷ Fan and Ma, p. 59.

⁴⁰⁶ Li Ying, interview with Zhu Feng, "China's Core Interests are not Suitable for Expansion," *Guoji Xianqu Daobao Online*, 10 January 2011.

strategic trends (economic and defense policies, military deployments and alliances) of other countries all affect this environment. 408

China's domestic strategic environment also impacts military strategy. The most immediate impact is felt in its geographic and political environment and comprehensive national strength. Geographically a **nation's security coefficient** is determined by a country's size, location, topography, weather, resources, and population. These determine the arrangement of military forces and key points of strategic defense. The political environment is determined by a nation's political qualities, policies, legal system, and basic social characteristics. Comprehensive national strength is determined by a country's economic strength, defense strength, and national cohesion. They make up a nation's total material and spiritual strength.

The editors noted that there are natural geographic elements (a state's geographic position, size, and shape of territory; natural resources; national capital; national boundaries; distance between states; and grand strategic space) and human geographic elements that affect strategy. Based on these relationships, an assessment of the security environment and an orientation of a state's strategic role must be made to include judgments on the direction of the main strategic threat and a determination of the key points of strategic attack and defense. There are vital interests between states, between the interests of nations and religions, between various strategic alliances, and between geo-economic relationships that may determine the lineups of certain players. Thus, a strategic study must be comprehensive, and it must view war from various aspects and stages (space, time, etc.).

Economic globalization and openings with other nations have expanded the Chinese leadership's view of national strategic interests. A nation's overseas dependence on economic development and on requirements for strategic resources is rising. These requirements are

⁴⁰⁸ Ibid., pp. 60-63.

⁴⁰⁹ Ibid., pp. 64-65.

⁴¹⁰ Ibid., pp. 62-72.

⁴¹¹ Peng and Yao, p. 9.

hindered by the unstable economic environment and the necessity to safeguard overseas investments and sea-lane security. National strategic interests have expanded from land to the sea and from the air to outer space. Non-traditional security topics have taken on added importance, to include environmental, information, and social security issues. Former Chairman Hu Jintao made the following demands on the military: assure Party dominance, secure strategic opportunities for national development, and safeguard national interests and world peace.

Military strategy's basic strategic tasks include first of all safeguarding the Party's ruling position, a task of prime importance which, to a Western mind, seems like an act of self-survival and demonstrates a lack of confidence in the population and military leadership. A second task of military strategy is safeguarding national unity and China's sovereignty and integrity. Deng Xiaoping pointed out that sovereignty and security must always be considered first. Containing Taiwanese independence activities occupies first place here. Not only must border defense and counterattack operations be perfected, but the PLA must also "actively construct military situations that favor us in resolving disputes over border territories." Constructing favorable situations is reminiscent of constructing *shi* or strategic advantage.

Contention over maritime issues is becoming increasingly intense. The Spratly Islands, Fan and Ma note, represent China's outpost and communication link to Southeast Asian countries, Europe, and Africa; are the outpost of security for China's mainland in the south; and have an enormous impact on China's economic affairs. The South China Sea has an abundance of aquatic products and large amounts of oil and natural gas resources. The East China Sea is the channel through which China must pass to get to the Pacific Ocean and to the US, East Asia, and the south of Russia. It has abundant energy and fishing resources as well. 414

⁴¹² Fan and Ma, pp. 50-54.

⁴¹³ Ibid., p. 54.

A third task of military strategy is safeguarding social stability within the country and a fourth task is safeguarding the ever-expanding area of strategic interests. China is moving from survival interests toward developmental interests. As national interests expand, China must enlarge its effective space and defensive combat capabilities in accordance with its military strategy. As requirements for oil consumption rise daily, it becomes ever more important to safeguard maritime shipping routes. Finally, military strategy must be able to safeguard world peace, space interests, information, and science and technology developments. With regard to information, effective information defense forces must protect the country from reconnaissance and information incursions from other countries, while simultaneously information offensive forces must be developed and information deterrence activities improved. World peace developments include expanding military exchanges and improving mutual military trust, strengthening regional stability, participating in United Nations (UN) peacekeeping operations, and promoting international arms control, disarmament, and nonproliferation pacts.⁴¹⁵

In 2007 retired PLA general Yao Youzhi, writing in the book National Defense Ideas and War Strategy, listed the elements of the strategic environment that have evolved in the 21st century. These are political multipolarization, economic globalization, and military informatization. As a military officer, Yao focused on the latter issue the most. He stated that informatization has improved the military superiority of hegemonic countries; has led to an arms race for the strategic initiative; has changed the shape of warfare; and has turned space into the new commanding elevation for international military competition. Informatized warfare depends, to a great degree, on the support offered by military space systems. Victory or defeat can depend totally on fighting for and controlling information superiority and space supremacy. 416 Yao added that traditional security threats and nontraditional security threats have become interwoven. For example, Yao writes that the US is using the argument of "counterterrorism" as a

⁴¹⁵ Ibid., pp. 55-59.

⁴¹⁶ Yao Youzhi, *National Defense Ideas and War Strategy*, PLA Publishing House, 2007, p. 69.

means to carry out a global hegemonic strategy through a unilateralist policy that, to a large degree, influences the international strategic situation. Of course, Yao's comments came in 2007. Perhaps now, some six or seven years later, his tune may be different due to China's financial advances, Russia's war with Georgia, the turmoil caused by the Arab Spring in the Mideast, and other factors.

Yao also discussed border disputes and maritime interests affecting China's strategic environment. First, he discussed the Sino-Indian dispute. He notes that along the 2,000-kilometer border the two nations share there are eight places of potential conflict. Three are in the western segment of the border, four are in the central segment, and one is in the eastern segment. Second, he discussed the South China Sea dispute, where four large archipelagos—the Pratas Islands, Paracel Islands, Macclesfield Bank, and the Spratly Islands—are claimed by China and by adjoining countries. China's policy has been to shelve disputes and engage in joint development of the region, according to Yao. He writes:

We need to soberly recognize that China's reefs have been occupied, its marine resources have been plundered, and the trend of 'internationalizing' the South China Sea dispute is still growing...disputes in the South China Sea will continue to move in the direction of 'pluralistic occupation of the reefs, legitimized division of the sea area, internationalized exploitation of the resources, and military struggles' complicated as intervention and international involvement by powers becomes increasingly obvious.⁴¹⁸

Third, he discussed the East China Sea continental shelf and Diaoyu Island dispute. China, divided by the "Okinawa Trough" from Japan, wants the shelf divided according to the principle of "natural extension," using the centerline of the trough as the boundary. Japan wants to use the centerline of the sea to divide the shelf. The result is a

⁴¹⁷ Ibid., p. 72.

⁴¹⁸ Ibid., p. 73.

disputed area of 210,000 square kilometers. Yao notes that the countries could still clash over the issue of oil and gas field exploitation in the area. 419 Internally, of course, China has to control supporters of East Turkistan Independence and Tibetan separatists who are continually working to stir up trouble, in China's view, in China's Xinjiang and Tibet regions.

Yao appears less worried over North Korea than Japan. He considers the latter as striving to become a military power at an alarming rate. In Southeast Asia, Yao notes an alarming arms expansionist trend in the countries of the Association of Southeast Asian Nations (ASEAN), a growth in terrorist and separatist activities in the region, and the growing intervention of powerful countries in the region's affairs. In South Asia the disputed area of Kashmir continues to fester and Yao believes the possibility always exists that peace could evaporate quickly in this region. He believes India is sparing no effort to expand its political influence at the international level. Moreover, as in other regions, the fight against terrorism remains grim. In Central Asia the rise of the "three forces" threat remains the center of focus. These are the religious extremist, ethnic separatist, and international terrorist forces. 420

Yao provides a glimpse of the growing confidence in China's expansionist tendencies. He writes that "in the new stage of the new century, China's rapid economic development is certain to promote continual expansion into external economic spheres." Further, "security problems concerning China's access to strategic energy in particular will become more prominent." He concludes by noting that military strategy must be ready to ensure a security environment for China that is favorable to national development and economic rights. 421 Interestingly, Yao does not address Chinese expansion into Africa or South America or other areas of the globe.

There were several other observations on China's geostrategic intent. Shi Yinhong of Renmin University believes that China should

⁴¹⁹ Ibid.

⁴²⁰ Ibid., pp. 74-79.

⁴²¹ Ibid., pp. 79-80.

mainly choose bandwagoning and transcendence as diplomatic strategies. Bandwagoning means jumping on the bandwagon of a trend, abiding by international norms, and acquiring advanced technological, management, and other methodologies. This is done by forming a world relationship with other countries based on harmony and common interests. Transcendence means participating in all international security institutions that benefit China more than they cost China. Guo Shuyong of the Foreign Languages University of the PLA stated that leader, onlooker, challenger, and partner strategies have been the historical categories of grand strategies. Ye Zicheng of Beijing University noted that China has yet to form a full strategic system.

A Geostrategic Example: A Military View of Xinjiang's Importance

Twelve years ago PLA Major General Liu Yazhou wrote an article titled "Theory on the West Region," which stated that China's geostrategic outlook should shift westward. With the passage of time, China has become the world's second largest energy importer and the Central Asian states of Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan have become one of the recipients of large Chinese investments, vindicating Liu's focus.

In 2010 Liu, while serving at the time as the political commissar of the PLA's National Defense University, updated his 2000 article. He stressed the following:

Xinjiang's importance to China today far exceeds its geopolitical status of being a gigantic buffer region. Because of its irreplaceable role of being an energy source, it plays an extremely high strategic role in ensuring China's energy security. Strategically speaking, Xinjiang is an extremely important strategic springboard: on land, western Xinjiang is contiguous with Central

⁴²² Shi is quoted in Men Honghua, "How to Conduct Grand Strategy Studies—A Discussion of the Significance of China's Grand Strategy Studies," paper presented at a conference at Renmin University, Beijing, on 29 July 2004.

⁴²³ Ibid.

⁴²⁴ Ibid.

Asia; its sea route via Pakistan to its south can directly access the Indian Ocean and the Hormuz Strait. 425

To date, eastern China has reaped greater economic benefits than western China in Liu's opinion, even calling the east of China the "renminbi belt." The Renminbi is the official currency of China. Eastern China is more stable ethnically than the western part of the country but it is faced with the strongest strategic deterrent, that being the US's construction of the "first island chain" opposite China's eastern seaboard. The majority of the population in the east is Han Chinese, which introduces more stability to the area. Xinjiang and Tibet, on the other hand, are multiethnic regions. If these provinces ever leave China, chances of their return become very remote in Liu's opinion. 426

Xinjiang provides both strategic depth for the defense of China and resources for the country's sustained development. Today, of course, China depends on energy and mineral resources more than ever before and it possesses some (such as rare earth minerals) that are only available in limited quantities worldwide. This fact is important because many of the places on earth where valuable mineral resources are located have already been occupied and exploited by other nations. What was left for China to exploit were places such as Sudan and Nigeria, which by western standards are not only turbulent but unsafe. 427

The one place where China can nullify these two issues of violence and safety conditions is in Central Asia. Further, Central Asian routes are not susceptible to any other big power's control or interception such as exist through the Malacca Strait. Petroleum, natural gas, and even uranium are available in Central Asia. The landlocked region is close to Xinjiang's pipeline and oil refinery **infrastructure**. Once the pipelines enter Xinjiang, they can be linked directly to those with access to China's east. Many of Central Asia's borders are contiguous with that of Xinjiang. As Liu noted in typical Chinese fashion, "Central Asia is a

427 Ibid.

⁴²⁵ Liu Yazhou, "Theory on the West Region," *Feng Huang Chou Kan*, No. 371, 5 August 2010, pp. 35-41.

⁴²⁶ Ibid.

precious piece of land with great *fengshui* that the early comers had yet to capture." ⁴²⁸

For Central Asians, Xinjiang holds cultural value too. Liu writes that only in one place do four cultures—Chinese, Indian, Greek, and Islamic—converge and that is in China's west region, often in Xinjiang. Some people even consider Xinjiang as a type of honorary member or fifth country of Central Asia. 429

Thus the value of Xinjiang for China is great. If Xinjiang becomes unstable, then China cannot properly safeguard its national interests in the region. Liu notes that due to Russia's current weakness and the US's focus on other areas of the world, China's greatest rival for Central Asian influence is probably Turkey due to its ethnic affinity to the region and thus appeal.

Geo-resource Issues

Thus far this chapter has outlined elements of China's concept of national interests and the objective environment. It is now time to take these background issues and apply them to China's resource strategy. One Chinese analyst has defined a strategic resource as "the long-term, overall, active and constructive materials influencing China's security and development. The said resources include economic resources, financial resources, technological resources, information resources, and resources of professional personnel." Recent Chinese articles have deemed soft military power, defense personnel, and near space as strategic resources. Strategic resources are required to maintain China's peaceful development. Comprehensive national power is said to encompass "all sorts of national strategic resources." Thus, when talking of strategic resources it is necessary to be precise. National strategic capabilities are said to refer to a "nation's capabilities of turning

⁴²⁸ Ibid.

⁴²⁹ Ibid

⁴³⁰ Chen Jiehua, *China's Diplomatic Strategy in the 21st Century*, Shishi Press, 2000. ⁴³¹ Long Fangcheng and Li Decai, "On the Relation between Military Soft Power and Comprehensive National Power Plus State Soft Power," *China Military Science*, No. 5 2009, pp. 120-129.

strategic resources into its strategic intention and achieving its strategic objective."

Another source defined a strategic resource as the cornerstone of national security and development; a "critical point in the geostrategic interest competition among the big powers" that needs to find expression in state policies and state behavior; and the essence of the state's future security and development. ⁴³² The author stated that China:

Should, according to the objective situation of the changes in the international environment and domestic development, redefine and make clear the status of strategic resources in our national security, direct the strategic view to the establishment of a stable strategic resource security system, strengthen the state's strategic reserve construction, increase the development and use of international resources, adjust the domestic resource consumption structure, and guard against the tendency of losing the direction and control of strategic resources in the course of opening up to the outside world. 433

China's military strategic capability, the author adds, is more important than comprehensive national power, since it is the shield of national security and development. It organizes strategic forces to achieve strategic objectives and represents a unity between material and spiritual capabilities as well as between strategic planning and the art of command. 434

In 1998, in an interview with Ku Guisheng, a deputy Director of a Scientific Research Department at China's NDU, reporter Yu Chunguang asked about China's desperate strategic resource situation and what could be done. Ku responded that a top priority was to work out a reasonable strategy for the development and application of strategic

⁴³² Yao Xiaoxuan, "Look Squarely at the Strategic Chain of National Security and Development—Strategic Resources, Strategic Industries, and Strategic Capability," *Jiefangjun Bao* Online, 23 December 2010, p. 10.

⁴³³ Ibid.

⁴³⁴ Ibid.

resources. He recommended the following: to conduct a universal survey and assessment of China's strategic resources; to set up a reasonable "system for comprehensively evaluating strategic resources" and a regulation and control mechanism; to tap new natural resources and consume them in an economical and reasonable way; to improve the protection and management of strategic resources; and to institute a strategy for the exchange and replacement of natural resources. ⁴³⁵

The 2001 book, *The Science of Military Strategy*, noted that many geographic elements form a state's geo-strategic thought process. Resources fall under the category of "natural geographic elements." Due to its size, China is able to exert its geostrategic influence well beyond its local area due to its strong political, economical, scientific, military, and technological power. ⁴³⁶ Further, authors Peng and Yao write:

Natural resources are sources of means of subsistence and means of production of human society as well as the objective conditions on which existence and development of a state depend. Natural resources may fall into two broad classes: regenerative resources (resources of land, water, biology, etc.) and non-regenerative resources (mineral resources and fuel resources, etc.). Distribution of resources consists of land resources and maritime resources. In history plundering and controlling natural resources were always the economic root cause of war. Under modern conditions scrambling for resources is not only represented by seizure and control of land resources but also represented by that of oceanic resources.

With regard to oceans, the authors write that "it is a key point of a state's geo-strategic relationship to maintain its national maritime power and rights in accordance with the United Nations Convention on the Law of the Sea (1982)."⁴³⁸ Outer space is also a new and sensitive national geo-

⁴³⁵ Yu Chunguang, "Strategic Resources Concern State Economic Security," *Jiefangjun Bao*, 25 May 1998, p. 4.

⁴³⁶ Peng and Yao, pp. 62-63.

⁴³⁷ Ibid., p. 64.

⁴³⁸ Ibid., p. 65.

strategic relationship. And Yao note that If a state wants to make a correct strategic decision, it must at first soberly recognize and judge its position in the geo-strategic configuration and international order, and then define its own role in international relationships so as to adroitly guide its behavior according to circumstances, go after gains, and avoid harm to make maximum realization of a state's strategic interest. Peng and Yao conclude this section of their book stating that the interaction and mutual influence of one state on another is the result of different national geo-strategic interests. Sometimes states come together for their own ends and sometimes they come together as rivals for the same resources. Further, different strategic geographic features will bring about different developmental orientations of strategic power.

Entire books have been written on the topic of grand strategy by both Chinese and US analysts. In 2004 Men Honghua, speaking at a conference at Renmin University in Beijing stated that grand strategy studies are based on three variables: national strength, international institutions, and strategic concepts. The process starts, however, with an evaluation of strategic resources. Men stated that grand strategy can be defined as "the art of integrated use of national strategic resources to fulfill national security and international objectives, whereby a state uses it strategic resources and strategic means, at the political, economic, military, cultural, and ideological levels, to protect and further the country's overall security, values, national interests, and so on."443 Men notes that the definition stresses the use, importance, and implications of strategic resources for fulfilling the objectives of grand strategy. Strategic objectives must be kept in balance with strategic resources and means. 444 Men stated that strategists must possess the professional qualities of "strategic thinking, including awareness of overall interests,

⁴³⁹ Ibid.

⁴⁴⁰ Ibid., p. 68.

⁴⁴¹ Ibid., p. 71.

⁴⁴² Ibid., p. 70.

⁴⁴³ Men Honghua, "How to Conduct Grand Strategy Studies—A Discussion of the Significance of China's Grand Strategy Studies," paper presented at a conference at Renmin University, Beijing, on 29 July 2004.

foresight, knowledge of history, awareness of the big picture, grand vision, rationality, logical thinking, and the power of integration. Specifically speaking, grand strategy studies emphasize relevance to overall interests and totality before anything else and entail integrated thinking to achieve the maximum goal of the country."⁴⁴⁵

National strength can be measured through a quantitative analysis of a nation's strategic resources and through international comparison. National strategic resources include not only hard strength (economic and military resources) but also soft strength (strategic conception, national strategic thinking, and decision-making power). An evaluation of national strategic resources allows for an evaluation of strategic capacity, the optimization of strategic concepts, the definition of strategic objectives, the planning of strategic content, and the execution of strategic means. He also determines whether a country must seek strategic resources outside its borders.

In 2008 Tang Yongsheng, an Assistant Director and Professor at the Strategic Studies Institute at China's NDU, penned an interesting article on strategy. He noted that there are changes to the concept of power in the international environment and the environment also has much new content due to the effect of globalization. However, China does not appear to be thoroughly probing the logic inherent in these changes, thus lowering the mandate for developing a new strategy. Further, it is not enough to equate planning national grand strategy with an extension of military strategy and equating strategic planning to a simple extension of stratagem. In planning national grand strategy it is necessary to regulate the use of stratagem. If the goals of grand strategy are correct, then optimizing stratagem selection in the choice of means, opportunities, and skills will undoubtedly help in the faster attainment of strategic goals. Strategists must learn to judge the hour and size up the situation, understand and adapt to new developments, and seek long-term development. The clever strategist does not rely on strength to impose his ideas on the objective world but rather can recognize the situation and use his own capabilities within the context provided by the logic of

⁴⁴⁵ Ibid.

⁴⁴⁶ Ibid.

history. Strategic planning must encompass a more far-reaching philosophical realm that takes advantage of opportunities. China must create conditions and promote processes that lead to the country's rejuvenation, to include balancing relations with the US and building mutually constraining relationships. China's path to attain its ever-expanding set of national interests should be as much circuitous as straight, gradually accumulating the strategic initiative during a long-term interaction with the external world. The US-Japanese link should be diluted, the Sino-ASEAN link strengthened, the SCO consolidated, and the South Asian Association for Regional Cooperation (SAARC) should play a positive role in regional cooperation. Finally, China should take some bold steps and undertake international responsibilities.⁴⁴⁷

Also in 2008 Zhang Minqian attempted to highlight the changes that globalization has introduced to geopolitics in general. Zhang was the Deputy Director of the International Strategy and Security Research Center at the University of International Relations when he wrote. He noted that the idea of "many winners" had taken priority over the "law of the jungle" due to the increased influence of international systems. Other issues that have impacted on the concept of geopolitics include geogeo-culture, technology power, information nongovernmental policies, and geo-space (regional geography). The composition of strategic forces is now driven by economic interests, culture, and other concepts (the role of resources, capital, nontraditional security factors, etc.) more than ever before. Small countries possessing important strategic resources are having added influence on international relations. These changes led Zhang to believe that China's strategic choices should focus first on handling relations with countries on its periphery and with the US. Second, China should international cooperation champion to deal with global nontraditional security challenges. Finally China should attach more importance to soft power and abandon the "victim" mindset as well. 448

⁴⁴⁷ Tang Yongsheng, "Act by Taking Advantage of Opportunities, to Deal with the Changes," *Xiandai Guoji Guanxi*, 20 September 2008, pp. 23-25.

⁴⁴⁸ Zhang Minqian, "Geopolitical Changes and China's Strategic Choices," *Xiandai Guoji Guanxi*, 20 May 2008, pp. 18-19.

In 2009 Xiong Guangkai, former keeper of the intelligence portfolio as Deputy Chief of the General Staff (he retired in 2005) and currently the honorary chairman of the China Foundation for International Strategic Studies, viewed the new global security strategic situation and environment as in need of a comprehensive security approach. This is because issues of integration and coordination are affecting all areas (economics, science, technology, environment, politics, and the military). China should safeguard its national development and maintain the present important period of strategic opportunities. 449 Oil, food, climate, public health, information, and financial issues are the top security concerns of China, in Xiong's opinion. For example, with regard to oil issues, Xiong noted that China's approach must include "implementing a strategy of diversifying channels of energy supply, adjusting energy consumption structures, increasing strategic oil reserves, and intensifying efforts to exploit overseas oil through international cooperation." 450 Oil will require transportation routes. With oil China is making waves in its efforts to declare the South China Sea to be a core national interest, and it is exploring other sea sovereignty and maritime interest issues as well.

From this basic understanding, China is attempting to acquire resources (energy, raw materials, etc.) for its developmental needs and to secure supply routes for these resources into China. Three questions ensue: what resources do the Chinese need? Strategically, what are the objective factors of China's resource strategy (the what and the where)? What are the subjective factors involving their acquisition and transport? In the end, does the acquisition of these resources fulfill the developmental interests and needs the Chinese seek? Developmental interests and needs may be for the good of the populace, for the attainment of military advantage, or for a host of other issues. For the remainder of this paper any strategic resource reference is to strategic energy or mineral resources.

⁴⁴⁹ Xiong Guangkai, *International Situation and Security Strategy*, Foreign Languages Press, 2009, pp. 133-139.

⁴⁵⁰ Ibid., p. 143.

Two strategic resource issues will be addressed in more specific detail below. The external resource that is of concern to Chinese national security is oil. The issue of China's strategy to obtain oil access in Sudan will be covered in particular, as well as the resources transportation route to China, that is, the South China Sea issue. The internal strategic resource of China that affects other nations is rare-earth elements, of which China currently controls more than 90% of the world supply. China's strategy in regard to this resource, a strategy that has not been extremely successful of late, is also covered. The reader is reminded that this unclassified look at China's geostrategic concerns offers few glimpses of thinking from above, that is, the opinions of China's top leadership. Rather, the examination is based on articles and books produced by journalists. However, their thoughts are quite revealing and worthy of examination as good examples of Chinese strategic thought.

African Oil

Energy resources are always a resource of the first rank. They represent the primary motivation behind any developmental strategy, whether it be for the citizen (oil for cars, electricity for home heating and cooling, etc.) or the military (fuel for tanks, ships, and aircraft, etc.). The impetus for China's quest for energy resources, especially oil, is based on China's large and growing population and its dwindling supply of domestic oil reserves. China's three best-known oil corporations—China National Petroleum Corporation (CNPC), China Petrochemical Corporation (Sinopec), and China National Offshore Oil Corporation (CNOOC)—are all working diligently to bring black gold back to China.

In 2005 Chen Bo's article, "On Strategic Resources and National Security," addressed China's energy concerns, using petroleum as a case study. Chen wrote that without a stable supply of strategic resources a country does not have complete national security. Strategic resources help ensure economic growth, political stability, and military security. Petroleum is the most important strategic resource, since it is "a key factor for creating social wealth, for making scientific and technological progress, and for supporting and winning victories in war." It is "the

⁴⁵¹ Chen Bo, "On Strategic Resources and National Security," *China Military Science*, No. 1 2005, pp. 7-15.

basic driving force for industrialization and an industrialized society." Since oil resources are unevenly distributed (sometimes in contested areas), obtaining essential supplies has become a critical national security issue. Whereas much of today's oil supplies are found in an arc from Northern Africa to the Middle East to Central Asia, the Asia-Pacific region is short on oil resources.

With resources located in areas other than the Asia-Pacific region, Chen stresses the importance of securing routes for their import and export. He writes that "those who control the oil transportation routes will actually hold dominance over oil resources in that specific region." This situation could make maritime and pipeline transport the focal points of future rivalries between countries. The Strait of Malacca between Malaysia and Indonesia is important for China, since it links the Indian Ocean with the South China Sea and is a main passageway for transporting oil to China.

China's rapid modernization will increase its demand for oil. Since 1993 China has been an oil importer. In 2005, Chen stated that China had 21% of the world's population, its economy accounted for 12% of the world's total, but its oil resources accounted for only 2.3% of the world's total. Thus, China's demand for oil is increasing yearly. Chen predicted that China's oil demand will be 300 million tons in 2010, 400 million tons in 2020, and 500 million tons in 2050. With this situation in mind, Chen notes that "it is necessary to make proper strategy and policy adjustments as soon as possible to guarantee national security in this regard" and "it is necessary to redefine the status of strategic resources in China's national security according to the changed objective situation of the internal environment and China's domestic development."⁴⁵⁵ Not surprisingly, Chen states that China must speed up developing a credible maritime security guarantee and its diplomatic efforts must focus on this issue as well. China must establish stable relations with resource-rich countries, sign bilateral and multilateral

⁴⁵² Ibid.

⁴⁵³ Ibid.

⁴⁵⁴ Ibid.

⁴⁵⁵ Ibid.

resource supply agreements where possible, and take part in international cooperative organizations. Further, Chinese diplomats should explore risk-sharing and comprehensive development issues with resource-rich countries. More specifically, China should:

- Expand its economic and political influence in the Middle East, Central Asia, and South America
- Increase those people's understanding of China
- Build up a benign environment favorable to China's import of oil
- Have Chinese petroleum enterprises internationalize business contacts with Asian, African, and Latin American countries
- Become a balance to the influence of Western transnational groups. 456

Chen also feels that China should advocate, promote, and participate in the building of an energy source cooperative supply system in Northeast Asia and in a long-term mechanism for guaranteeing the effective supply and security of strategic materials. Internally China should establish a state strategic resource security system that includes the state's strategic storage system, the development of domestic and overseas resources, and the strategic adjustment of the domestic resource consumption structure. Oil storage should not fall below one quarter of the annual net import volume of oil.⁴⁵⁷

In another 2005 article, this time from the *China Daily*, Zhang Weiping, an associate chief economist at CNOOC, noted that leading powers such as the US adjusted their energy strategies to fit contemporary circumstances. This included expanding security resources and transportation routes. The paper stated that "the United States has managed to strengthen its strategic position in the Middle East in the wake of the Iraq War and increased threat deterrence along oil transportation passages through its military presence. At the same time Washington has reinforced control over global strategic resources via

⁴⁵⁶ Ibid.

⁴⁵⁷ Ibid.

giant multinational activities worldwide." These issues—military presence and a deterrence posture over transportation routes—appear to be key ingredients of China's oil strategy, as the information below will demonstrate. How widespread this thinking goes is unknown but it is apparent that many Chinese analysts believe the US went to war with Iraq simply because the latter posed a danger to the stability of the US's oil market. Will the Chinese use this rationale to go to war themselves over similar energy concerns? Hopefully it will not.

Zhang then made two rather bold suggestions. He stated that China should undertake the following steps: (1) prospecting (involving huge risks but potentially handsome returns and acquisitions) for gas fields and oilfields simultaneously; and (2) tapping into energy resources in countries that have backward oil and gas infrastructures (while helping them establish their own energy industries). This helps ensure a win-win situation in which both parties are able to share the benefits. In hindsight, China has done just that in African countries.

A 2005 article noted that China's strategy is to use military measures as a backup only, to take advantage of new technologies, funds, and management superiorities, and to satisfy Chinese needs in countries other than those controlled by developed countries. This strategy includes developing greater resource diplomacy, energy diplomacy, and state diplomacy to create the political and economic environment and a safe external environment (sea routes?) for Chinese companies to go global. Further, China must move away from its dependence on Middle East oil and diversify its imports. It must participate in organizations with influence over the international energy investment scene to create more favorable conditions for its foreign policy ventures.

Xiong Guangkai notes that China is now the world's second largest oil consumer. 460 He noted that in 2006 British Petroleum's World

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⁴⁶⁰ Ibid., p. 186.

⁴⁵⁸ "China Needs Sophisticated Overseas Energy Strategy," *China Daily* (Internet Version), 7 November 2005.

⁴⁵⁹ Chen Baosen, "Calmly Deal with New Trends in the Struggle for Global Resources," *Jingji Ribao*, 17 January 2005, p. 7.

Energy Statistics stated that global oil reserves "would only last another 40 years or so if their exploitation was kept at the current speed, while natural gas and coal reserves would only last 65 or 162 years respectively." For China, maintaining sustained development and overseas access to this diminishing resource have become vital strategic challenges. 462

Africa, of course, has been a focal point for Chinese strategic activities for some time. A 2006 report stated that these strategic activities differ from the US approach to the region in a significant way. China is making a huge investment in infrastructure, medical services, and so on. The Chinese accuse the West of simply making accusations against the local government and imposing sanctions. The West, this report stated, hopes to kill off the "illness" (poverty, corruptions, etc.) at one blow, while China hopes to "improve local immunity." 463 China's Ministry of Foreign Affairs, also in 2006, stated that "we will not act like the western colonialists in barbaric plunder and bloody violation of human rights."464 China, on the other hand, "improves local human rights by developing the local economy through cooperation with local oil companies." Poverty must be eliminated and sanctions do nothing to help this. This line of Chinese reasoning, of course, would be seriously tested if placed against US standards. It is well-known that the US has accused China of violating human rights and supporting corrupt dictators for years in Africa.

A major reason for China's interest in African oil is that most members of the continent are not members of OPEC and thus "not subject to OPEC production restrictions." Further, African nations admire the rapid growth of the Chinese economy, while Africa offers China a diversified energy supply channel that is fairly reliable and safe. One uses the term "fairly" due to the occasional kidnapping or use of

⁴⁶¹ Ibid., Xiong Guangkai, p. 187.

⁴⁶² Ibid., p. 85.

⁴⁶³ Xie Yanjun and Wu Xiaopeng, "China's African Blueprint for Sharing Oil," *Shiji Jingji Baodao* (Internet Version), 8 May 2006.

⁴⁶⁴ Ibid.

⁴⁶⁵ Ibid.

⁴⁶⁶ Ibid.

armed gangs to extort money from foreign workers and local governments. Chinese policy makers, however, tend to ignore these difficulties (civil strife, famine, ethnic conflict, etc.) and hope to capitalize on the exodus of some US and European oil companies.

Another potential strategic issue, one at odds with traditional Chinese policy, is the easing of China's nonintervention policy toward other nations. In 2008 Wu Lei and Lu Guangsheng, Professors at Yunnan University, stated that adjustments in the principle of "nonintervention in internal affairs" offer several benefits. These include new diplomatic ideas that agree more completely with reality and the further improvement of the practicality and flexibility of China's diplomatic policies. Such adaptation will only be partial, of course, and not total. Influence can be attained more moderately through multilateral mechanisms, UN diplomacy, backstage diplomacy, and public diplomacy. 467 Wu and Lu completed their recommendation for more adjustment in China's foreign policy by noting that adjustments would be "good for enlarging China's national interests, good for the long-term overall interests of African oil-producing countries, and good for embodying China's international responsibility and international image..."468 Obviously, this recommendation could counter one of China's Five Principles of Peaceful Coexistence (mutual respect for the sovereignty and territorial integrity of other nations) if taken too far.

In 2008 Zhao Zhiming, the executive president of the China Petroleum and Petro-Chemical Industry, stated that China hopes to practice the principle of mutual benefits in developing African oil. The formula for success to date, according to Zhao, has been to first altruistically offer assistance, then send people to provide on-site training, and then run joint ventures with African countries and further train local talent. Technical support is buttressed with offers of financial assistance. 469 Chinese authors believe that such cooperation is based on efficiency, equality, and mutual-trust. This slow approach not only keeps

⁴⁶⁷ Wu Lei and Lu Guangsheng, "Some Reflections on the Development of Sino-African Energy Relations," *Shijie Jingji Yu Zhengzhi*, 14 September 2008, pp. 52-58. ⁴⁶⁸ Ibid.

⁴⁶⁹ Wang Guoqin, interview with Zhao Zhiming, "Thirty Percent of China's Crude Oil Comes from Africa," *Shiji Jingji Baodao* (Internet Version), 19 March 2008.

Africa interested in China and lessens fears of being manipulated but also helps firm up long-term partnership packages. Moreover, there are many countries with which to implement this policy. To date, China has oil agreements or talks with Algeria, Angola, Chad, Congo, Egypt, Equatorial Guinea, Ethiopia, Gabon, Kenya, Libya, Niger, Nigeria, Somalia, Sudan, Tunisia, and Uganda. Geographically these countries are located in Africa's core area and north/northeast coast.

In 2010 Sun Xuefeng and Wang Haibin, identified only as two Chinese scholars, wrote a lengthy article for *Dangdai Yatai* on China's crude oil strategy. The article is full of interesting insights and implications about the objectives and methods of Chinese oil strategies. The authors note that, in light of China's growing demand for oil to satisfy the growing number of people and industries with energy needs and demands, a "go global" strategy was adopted in 1997. The effort has met with successes (such as the CNPC projects in Sudan) and failures (CNOOC's inability to acquire Unocal Corporation being the most publicized). Based on these experiences, however, a methodology was reached on the types of strategies and tactics to use to gain access to oil.⁴⁷⁰

The authors contend that a key to entering an oil-rich area is to ease resistance. That is, instead of stirring up confrontation (read "not worrying about corruption or human rights violations") or resorting to the use of force (read "no Iraq"), China should not take any initial action that would force the other side to make concessions. The strategies involved to limit confrontation and encourage participation involve the limited sharing of profits and the elimination of obstructions posed by one's rivals (again, read "US insistence that countries adhere to human rights demands"). By exploiting contradictions between China and other rivals, China can make inroads in some nations that the US and other nations cannot. Using contradictions, the authors note, means "using the strategic contradictions and political differences within the party that owns the resources or between the party that owns the resources and

⁴⁷⁰ Sun Xuefeng and Wang Haibin, "China's Strategic Options at Tapping the World's Crude Oil Resources," *Dangdai Yatai*, 20 January 2010, pp. 57-78.

other rivals to secure oil development rights."471 In summation, Sun and Wang contend that the strategies used by China to gain access to an overseas oil resource and participate in its exploitation are the strategies of limited diversion, limiting returns, and contradiction exploitation, as mentioned. China has developed three strategic initiatives in order to stabilize and even expand its oil interests in a nation. They are:

- Follow strategic orientation, which means a maintaining and enhancing China's influence over the resource's owner through security protection. This "strategy requires the nation [China] to possess a substantial military power." Perhaps therein lies another significant reason for China's growing military power.
- Strengthening ties with the resource owner by providing political support and economic aid or by establishing trade contacts.
- Using the draw of technology to upgrade existing oil exploration and recovery methods in the country and thereby boost returns on development to maintain and expand China's influence.472

Interestingly, when discussing the stabilization and expansion phase of strategic operations, the authors cited the CNPC's successful strategy in regard to Sudan. The examination was made "in conjunction with strategic theory." The basic objective is to increase ones influence in the resource-rich area, eliminate obstructions from competitors, ensure parties who own the resources adhere to energy cooperation policies, and protect and expand the nation's oil interests. The "protect" issue usually involves the use of the armed forces, either traditional or non-traditional (such as peacekeepers). The methods to influence nations include forming a military alliance with the resource-rich nation, maintaining good political and economic relationships with the nation to protect

⁴⁷² Ibid.

⁴⁷¹ Ibid.

one's crude oil interests, and raising the level of oil development technology and recovery efficiency. 473

Sun and Wang note that nations that want another country's resources are inclined to take risks. If China offers support and protection to a resource-rich nation, then other countries with an interest in these same resources may resort to confrontation with China. Strategic judgment must be used in balancing the pros and cons of offering protection or not offering it. Sun and Wang believe that Chinese actions in Sudan demonstrate an aspect of this paradox. In 1995 Sudanese President al-Bashir asked China to help develop its oilfields. The initiative was prescient, since the US pulled out of Sudan the following year (the authors did not say WHY the US pulled out or why the US imposed sanctions on Sudan). By 1999 the Chinese had put its first overseas oilfield officially into production mode, and it continued to win contracts for new developments in Sudan over the next five years. In 2005 a subsidiary of China's CNPC began off-shore prospecting and entered Sudan's natural gas sector as well. Today, a little over a decade of effort has resulted in the CNPC creating a complete and comprehensive oil industry "covering production, transportation, and sales and marketing. CNPC's projects in Sudan have become the company's largest and most profitable projects in Africa."474 Thus, while not engaging the US in direct confrontation, in this case China took advantage of US policies.

Both China's technological and political support of Sudan lie at the heart of its success story. Regarding technological advances, the authors state that China has built the world's first delayed coking facility for processing high-calcium and high-acid crude oil; and with another technology it can remove sand from oil and overcome problems caused by high levels of calcium, acid, and stickiness. CNPC has also made twelve times the number of oil field discoveries than Occidental Petroleum made in a similar time frame, according to the authors. Politically, China has supported Sudanese sovereignty in the face of international pressure over the Darfur issue. In 2007 China became the

⁴⁷³ Ibid.

⁴⁷⁴ Ibid.

first country to put forward a dual-track strategy of parallel progress, combining the search for a political solution with peacekeeping operations. China does not approve the involvement of the International Court of Justice, nor does it support internationalizing the Darfur issue. Finally, China opposed the imposition of sanctions on Sudan. Sanctions would only lengthen and worsen the conflict, in China's opinion. Thus, China's approach is the inverse of the US's focus on human rights and sanctions for tragedies such as Darfur.

Concluding their remarks, Sun and Wang note that every large nation's oil interests are enhanced if the nation can lower any resistance from its competitors and win the support of the country owning the resources, and then stabilize and expand its oil development interests in the country it is occupying. Limited diversion is a strategy for sharing overseas oil interests. It is the ideal and most realistic choice, Sun and Wang state, because it is a gradualist approach that can ease any strategic misgivings of the resource owner. In fact, the authors state that such an approach was not used when CNOOC attempted to buy Unocal outright. It might have been better just to buy some Unocal shares. The other two strategies—limiting profits and exploiting contradictions—effectively diffuse obstructions from China's rivals. Among other strategies that China may use to increase influence in a resource-rich area are providing the resource owner with security protection and maintaining a good economic and political relationship with the owner. China's energy diplomacy also relies on maintaining a close trading relationship with the resource owner and raising the level of oil exploration and recovery technology in the owner's country. 476

The shortcoming in China's current situation is its lack of strategic influence, in the author's opinion. They finished their article noting that "fundamental to any effort to boost and enhance China's ability to obtain overseas oil interests is the expansion of China's strategic influence so that even more countries voluntarily support China's policies and so that we can prevent other countries that desire to

⁴⁷⁵ Ibid.

⁴⁷⁶ Ibid.

damage China's interests from achieving their objective." Therefore expect Chinese attempts to expand their influence to continue to develop.

Transporting Oil: the South China Sea Issue Heats Up

In past decades, the Chinese Navy's activities have been surrounded by the United States with layers of 'island chains' and its energy security controlled by the United States and other marine powers. This fact makes Chinese people concerned. In the past two days, eleven warships of the Chinese Navy sailed through the restriction of the 'first island chain' from international waters to 'deep blue.' This news quickly became a favorable topic discussed by the Chinese people... 478

A current contention between China and a host of other countries (Vietnam, Philippines, Malaysia, etc.) focuses on the issue of sovereignty over strategic maritime passageways in general and over territories of the South China Sea in particular. This section discusses the issue of strategic maritime passageways from China's perspective and the issues that confront it in the South China Sea. Included in the discussion are responses from Chinese scholars, government officials, and military personnel. The essence of the discussion is that China's strategy must rely on bilateral discussions to solve these issues and not on the use of international courts and multilateral talks; must be ready to employ military force if diplomatic talks fail; must win the international media battle for influence over public opinion at home and abroad about the correct position and right of China's concerns and its judicious approach; must limit concessions; and must limit or neutralize US moves (US reconnaissance missions in the area of the South China Sea, military exercises with China's neighbors, etc.) in the region.

One of the more recent and useful Chinese articles on maritime passageways was a 2010 article that appeared in *China Military Science*.

⁴⁷⁷ Ibid.

⁴⁷⁸ Unattributed article, "Imperative for China to Break Out of the 'First Island Chain'," *Wen Wei Po* Online, 10 June 2011.

Author Liang Fang, a senior colonel at NDU's Strategy Office for Teaching and Research, outlined the historical importance of strategic maritime passageways and how their control enabled the US to become a world power. For China, he added, energy production is now located in regions separate from the mainland, thereby making transport a key security issue. Without a doubt, Liang added, "safeguarding the security of strategic maritime passages is one important aspect of fighting for and controlling strategic resources." Sea supremacy for sea powers such as the US was the result of their ability to control maritime communication lines and strategic passages, while establishing maritime hegemony. Liang implies that China's view of objective reality is that the nation cannot supply its own energy needs and must build a naval force to secure safe passage for the products they require. 480

Further, Liang adds that the "law of distance attenuation" in geography (the farther the distance from a target the less control over it) demands that the development of technologies, the development of regional and global alliances, and the development of overseas bases become increasingly important ways to help control and lessen the distance factor. Bases in general also serve as a strategic deterrent factor and allow for fast reaction capabilities to protect important passageways. Finally, bases protect a nation's interests and enable the protection of straits, waterways, and even open seas. Liang then states that three factors allow for the acquisition of sea supremacy in the modern age:

The first is relying on land bases, the second is relying on island bases, and the third is relying on aircraft carriers. Of these, islands have the functions of both land bases and aircraft carriers. They are both an unsinkable aircraft carrier and an extension of land bases out in the deep sea; they can greatly expand the range of sea control. For the most part, islands must be occupied first for [protection against] offensives against the mainland. Islands are also

⁴⁷⁹ Liang Fang, "An Analysis of the Laws of Sea Powers Contending for and Controlling Strategic Maritime Passages," *China Military Science*, No. 5 2010, pp. 135-142.

⁴⁸⁰ Ibid.

a protective screen for the mainland, being on guard against invasion from the sea. 481

Islands are relay stations and stepping stones. They figure into a nation's geostrategy and receive consideration when examining national interests. In that regard islands are like small countries. Major powers frequently try to bring smaller countries located near strategic passages under their influence. Such arrangements work for both countries, the larger country receiving the basing it requires and the smaller country receiving added security protection. For several of these reasons China has focused its diplomacy on attaining control of several islands (Spratlys, etc.,) in the South China Sea.

Also in 2010 Cao Wenzhen, who is associated with the Law and Politics School of Ocean University in China, added his opinion to the strategic passageways discussion. He highlighted the continuing importance of geopolitics in the age of globalization. The geographic location of strategic resources and the continuing importance of trade and supply routes almost guarantee that geostrategy and geopolitics are two topics that will be with us for a long time to come, in his opinion. For example, as China becomes a sea power there will be a corresponding impact on the geostrategy of the US, whose only bases in the region are in Japan, South Korea, and Diego Garcia. Chinese Major General Luo Yuan defined sea power as "a country's ability to control oceans by means of military power, of which the strength of its navy is the most direct embodiment, while what image a navy presents when safeguarding its sea power depends on the country's clear positioning of its navy's functions and definitions." 483 Wang Yizhou, a Vice Dean at the School of International Studies of Beijing University, stated that "it can be predicted that in the future the Chinese Navy would have increasingly bigger formations to go beyond the 'first island chain' with increasingly advanced equipment to conduct exercises so as to protect China's maritime passages and preserve international peace." 484 To

⁴⁸¹ Ibid.

⁴⁸² Ibid

^{483 &}quot;Imperative for China to Break Out of the 'First Island Chain"

⁴⁸⁴ Ibid

counter China, Cao believes the US is attempting to build an island chain of deterrence from Japan and South Korea in the north, "through the Taiwan Strait, the South China Sea, the Philippines, and Singapore in the middle, to Australia in the south."

In 2011 Yang Zhen and Zhou Yunheng, two PhD students at Fudan University's School of International Relations and Public Affairs. offered a contrasting view as to the importance of sea strategy. They wrote about the growing conflict between the US and China over sea power. With regard to relations with the US, the authors suggested reasons that either conflict or cooperation could evolve from the confrontation. For conflict, he noted that the two countries have different strategies, national interests, and ideologies. For cooperation, he noted that the rise of nontraditional security issues and the deepening of integration and mutual reliance on one another have offered more room for mutual agreements. The US's strategic goals are now simply maintaining dominance instead of seizing dominance, as well as hindering China's growth. The US wants unhindered power on the sea, a goal that China is challenging. China is a world trade power that increasingly relies on a secure and stable global maritime system. Ensuring the security of transportation routes from Africa and other nations is of supreme importance. To effectively control the sea China must increase its maritime strength and develop its sea power. In the mid 1980s China proposed a strategy of coastal water defense, which is a strategy of regional defense. 486 Now, due to the increased importance of transportation routes, China must expand this strategy beyond the immediate region.

The conflict between China and the US over sea power is increasing in intensity, scale, and key areas. With regard to key areas, the South China Sea is one of the most important, in the authors' opinions, for several reasons. First, several international maritime routes cross this area, to include China and Japan. Second, the internationalization of the

⁴⁸⁵ Cao Wenzhen, "US-China Marine Geopolitics and Strategy in the Era of Globalization," *Taipingyang Xuebao*, 25 December 2010, pp. 45-51.

⁴⁸⁶ Yang Zhen and Zhou Yunheng, "Conflicts over Sea Power between China and the United States," *Xiandai Guoji Guanxi*, 20 February 2011, pp. 6-11,

Nansha (Spratlys) problem is becoming more acute. Third, the South China Sea area is vast and is even home to some Chinese nuclear submarine bases. Finally, the area will be home to the Wenchang Aerospace Launch Center (Hainan Island), making US control of the area a way to deter China's secondary nuclear attack strength. Objectively, the role of armed conflict as a tool to protect national interests between great powers has declined. Subjectively, both nations are working hard to avoid a large scale conflict. Military engagement exercises and the development of a US-China hotline have helped this endeavor. Hopefully more work will occur between the nations over issues such as maritime terrorism, ecology, the spread of disease, transnational crime, narcotics smuggling, illegal immigration, and piracy. supremacy is but one aspect of contemporary However, sea supremacy. Now, comprehensive the authors note. space electromagnetic supremacy are as important, if not more so, than sea supremacy. 487 One should expect an additional strategic focus on space as a result of this requirement.

The products China requires to ease some of its energy needs are located far from its shores. Nearly 70 percent of China's foreign trade volume is now realized through maritime transport. Reacquiring lost territory (i.e., Taiwan) also requires sea access, according to Cao. Thus China must depend on sea routes for both economic and strategic reasons. To prevent the US from blocking Chinese access to either of these strategic targets China must continue to modernize its military, especially its naval forces. A major power, Cao notes, combines actual strength with geostrategy and the application of force at key strategic points. Sea supremacy is now a geostrategic objective that will be used to get parties to cooperate with the principle of "setting aside sovereignty and jointly developing." China's future will be decided by applying the proper set of tools to its perception of objective reality and not by listening to "people's peace-loving subjective desires."

⁴⁸⁷ Ibid.

⁴⁸⁸ Ibid.

⁴⁸⁹ Ibid

must develop issues of mutual trust with the US while simultaneously preparing for the worst to avoid being caught unprepared. 490

In May 2011, reporters Wen Zhizhong, Tang Anhua, and Sun Bingxiang reported on a Guangzhou Military Region meeting with various commanders. They discussed the importance of the strategic opportunity that currently lies before the Chinese. Commander Xu Fenlin of the military region noted that the military must continuously take development as the primary requirement in this strategic opportunity period. Development must take place around the national sovereignty and security aspects of the international situation. National unity and territorial integrity are core interests of the state, Xu noted, and a longterm development strategy will enable the attainment of the initiative in world affairs. Enhancing deterrence through enhanced operational capabilities such as the system of systems capability is an achievable goal and one that will make the force capable of performing diversified military tasks. The Guangzhou Military Region lies next to the South China Sea, and China must, in Xu's words, "truly build this strategic direction into the motherland's harmonious and tranquil southern frontier making it as impregnable as bedrock."491

Also in 2011 Xu Zaihua continued the South China Sea discussion in a *Jiefangjun Bao* Online article. He noted that a marine strategy with Chinese characteristics is needed to win the current fight over marine resources and passageways. The task of China's naval forces is to make preparations for actual military struggles; safeguard the country's resources and islands; strengthen control over important straits; and protect the safety of maritime transportation lines. Further it is necessary to integrate civilian and military resources and develop the capabilities for maritime transportation support using system of systems operations based on information systems.

⁴⁹⁰ Ibid.

⁴⁹¹ Wen Zhizhong, Tang Anhua, and Sun Bingxiang, "Guangzhou Military Region Organizes Exchange of Results in Studying and Implementing Chairman Hu's Important Expositions on National Defense and Armed Forces Building...," *Zhanshi Bao*, 12 May 2011, p. 1.

⁴⁹² Xu Zaihua, "Strategic Passages are Laid Here," *Jiefangjun Bao* Online, 29 June 2011, p. 10.

Clearly, these opinions from Liang, Cao, Xu Fenlin, and Xu Zaihua indicate that China is intent on making its navy both powerful and capable of protecting its sea lanes for economic and historical (Taiwan) reasons. China realizes that at the present time the US controls much of the strategic passageways around the country. This arrangement works fine in peacetime, the analysts note, but it also allows the US to control China if a conflict erupts. China wants to change this equation in its favor.

In drawing up its strategy for the South China Sea, Zhu Chenghu, a professor at NDU, stated that the effort should be led by the China Institute for Marine Affairs under the State Oceanic Administration. Other agencies, namely the military, the Ministry of Foreign Affairs, the Ministry of Public Security, the Ministry of Commerce, the Ministry of Agriculture, and the Ministry of Transport, Customs, and Coastal Provinces should also participate in the discussion. The issues of territories, the demarcation of sea borders, and maritime rights and interests should be incorporated into the discussion. Other nations in the region, in Zhu's opinion, are turning the South China Sea into "an ATM machine" as they plunder oil resources, open up areas to tourism, and claim land. To counter these moves, China should explore for and extract oil and natural gas off the Nansha (the Chinese name for the Spratly Islands) Islands; open the islets to tourism; make full use of the UN mandate to expand existing facilities on the Yongshu Reef by strengthening its research in various fields and turning it into a UN research center; strengthen exploration and investigation in the South China Sea waters; and strive for greater discourse over the fate of the region. With regard to the latter issue, an information briefing mechanism should be established that will update academic institutions on recent happenings. Finally, Zhu notes that China "has indisputable sovereignty over the South China Sea despite the fact that China is the first to propose a joint development... Here, China's claim for indisputable sovereignty will encounter many problems, since other

⁴⁹³ Zhu Chenghu, "China Can Do More in its Handling of the South China Sea Dispute," *Huanqiu Shiao* Online, 1 July 2011.

nations believe they too have several sovereignty claims in the South China Sea that are backed up historically.

Chinese scholars have offered a number of opinions on how China should treat challenges to its interests in the South China Sea. In another 2011 article summarized below, seven authors were interviewed. Their ideas are varied and worthy of consideration:

- Zhou Fangyin, Chief of the Editorial Office of "Contemporary Asia-Pacific Studies" of the CASS Institute of Asia-Pacific Studies: China should no longer make concessions or try to freeze talks or shelve disputes. Rather, China must never be ambiguous on matters of principle that require a firm stand.
- Li Jinming, Professor with the Research School of Southeast Asian Studies at the School of International Relations, Xiamen University: first, public opinion must be enlightened and propaganda on the South China Sea issue should be distributed. Articles should be published in foreign English-language journals. Seminars on the South China Sea issue should be convened to gain the initiative over world opinion. Foreign companies should not be permitted to explore for oil in the South China Sea. We should not allow the South China Sea issue to become international or multilateral.
- Li Guoqiang, Deputy Director and Research Fellow at the CASS Borderland History and Geography Research Center: there are only diplomatic, military, and legal approaches to the South China Sea issue. If all parties agree to the Declaration on the Conduct of Parties in the South China Sea a diplomatic agreement is possible. However preparations should be made to recover the occupied islets and reefs at an appropriate time if diplomatic matters don't work out. The US must be kept out. As a strategy that could be employed against the US, if a US company participates in oil exploration then strategically it

- "may face tremendous losses in its interest as well as its future development in China and may even face sanctions."
- Rear Admiral Yin Zhuo, military expert: territorial divisions and the sovereignty of islets and reefs is the core of the South China Sea issue. Only when a country "has sovereignty over islands and reefs would it be entitled to territorial waters and an exclusive economic zone." Some countries professing to have such rights in actuality do not.
- Ye Hailin, Chief of the Editorial Department of South Asian Studies of the CASS Institute of Asia-Pacific Studies and Special Commentator of *Guoji Xianqu Daobao* (*International Herald Leader*): China's media have not gone beyond the stimulus-response model. We are only adept at following up on the reports of others and responding with statements. The media must create topics regarding what China should do in the critical South China Sea area. The media must let people know that a peaceful development may not work.
- Gao Zugui, Professor at the Research Center for International Strategic Studies at the Central Party School: China must not allow the US to become the arbiter over the future direction in the South China Sea. China is stronger now and this implies that neighboring countries will be more anxious and insecure. We must not allow our neighbors to undermine the stable framework that China has built with ASEAN. New discoveries may await us if we use the perspective of regional or national strategy.
- Xu Ke, Assistant Professor with the Institute of Nanyang Studies at the Institute of International Relations, Xiamen University: China must move out of its current passive position and look for other ways out and seek a new starting point. Combating pirates

in the South China Sea can be a starting point, for example. 494

A 2011 CCTV interview with Yin Zhuo and Ye Hailin provided an opportunity for these gentlemen to expand a bit on their views. Yin stated that of the 50-plus inhabitable islands in the South China Sea China controls only eight. Claims over the islands increased in the 1970s when oil was discovered in the region. Ye stated that China should attempt to differentiate between those ASEAN members who are willing to cooperate with the mainland versus those who try to seek every possible (economic, strategic, resource, etc.) advantage at China's expense. If concessions are made then other nations will be more provocative as well. 495

The authors of the seven interviews listed above (the three reporters) stated that China is intent on conducting a "People's War in the ocean," using military maneuvers in the South China Sea to show its neighbors that China exercises full sovereignty over the area. The security of Mischief Reef and sovereignty over the Nansha Islands within the nine-dotted line are the areas of current concern. With regard to the line, three other authors (Liu Bin, Zhang Lu, and Fang Shuo) wrote the following in 2011:

Why China's boundary line in the South China Sea is called the nine-dotted line can be dated back to 1947 when the Territorial Administration Section under the Ministry of the Interior of the Chinese government plotted an undefined line made up of eleven dotted-lines on the Location Map of the South China Sea Islands published by it. The government of the People's Republic of China also has plotted a line in the same position on maps published by it but revised the eleven dots to nine dots. 496

⁴⁹⁴ Huang Yingying, "South Sea Stratagems: Standing Firm on the Diplomatic Front and Drawing Support from the Media," *Guoji Xianqu Daobao* Online, 25 July 2011. All items in this bulletized format are from this article.

⁴⁹⁵ CCTV-Xinwen, 17 June 2011.

⁴⁹⁶ Liu Bin, Zhang Lu, and Fang Shuo, "China's Real Presence in the South China Sea," *Nanfang Zhoumo* Online, 21 July 2011.

These reporters wrote that China's military presence in Nansha includes the South China Sea Fleet, which is also stationed at Zhubi Reef, Nanxun Reef, Yongshu Reef, Chigua Reef, Dongmen Reef, and Huayang Reef. More than ten departments are currently exercising marine law enforcement at this time. There are five specific forces involved in this effort: the Maritime Police of the Border Control Department under the Ministry of Public Security; the Marine Surveillance Teams of the State Oceanic Administration under the Ministry of Land and Resources; the China Maritime Safety Administration under the Ministry of Transport; the Chinese Fishery Administration of the Fishery Bureau under the Ministry of Agriculture; and the Anti-Smuggling Police of the General Administration of Customs. Unfortunately the coordination among them is weak, according to the reporters.

The reporters state that the only agreements with regard to the South China Sea dispute are the United Nations Convention on the Law of the Sea, passed in 1982, which is the basis for the 200-nautical-mile exclusive economic zones along the coast of neighboring countries; and the Declaration on the Conduct of Parties in the South China Sea in 2002, where signatories agreed to "exercise self-restraint in the conduct of activities that would complicate or escalate disputes." 498

At the moment, the fishing industry has become a major point of contention among parties to the dispute. Fishermen from all nations are casting their lines in waters that are contestable with certain of their neighbors. Chinese fishing boats are required to install Beidou satellite positioning systems so that the Chinese government and patrol boats will know where they are located at all times.

In a wide-ranging 2011 CCTV interview other regional and military experts offered their opinions on the South China Sea issue. Rear Admiral Zhang Zhaozhong, the well-known military expert and professor at NDU, stated that a recent US-Vietnamese military exercise

⁴⁹⁸ Ibid.

⁴⁹⁷ Ibid.

⁴⁹⁹ Ibid.

was unprofessional and a publicity stunt. Jin Canrong, Deputy Director of the International Relations Institute at Renmin University, stated that Vietnam intends to use the US as its "big brother," since it is the only way for the country to engage in a show of force. Jin, due to the US's domestic woes, regards America as an undependable ally. A video clip is then shown of joint exercises between the US and Malaysia, Indonesia, the Philippines, Brunei, Vietnam, Singapore, and Thailand. Zhang believes these exercises are designed to show US support for these nations over the South China Sea issue, while the real aim is to contain China. This is the US's main goal, in his opinion. He notes that Singapore and the Philippines are likely future military installations for the US. Japan is also very interested in the South China Sea because it serves as the passageway for Japan's energy needs. 500

There are four misunderstandings regarding China's policy on the South China Sea, according to Xing Guangmei, a Beijing scholar writing in 2011. First, China does not claim sovereignty over the whole of the South China Sea waters. China declares sovereignty only if necessary but never advocates the use of arms. China is devoted to advancing ties with all regional actors. Its claim has three points:

- (1) China has sovereignty over all the reefs and territorial seas in which they are located, within the nine lines of demarcation. China's Declaration of the Territorial Seas (1958), Law on the Territorial Seas and Contiguous Zones (1992), and the diplomatic statement that "China has indisputable sovereignty over the South China Sea islands and adjacent waters" provide a legal basis for such claims.
- (2) China enjoys sovereignty and exclusive jurisdiction over the exclusive economic zone extending 200 nautical miles from the territorial sea baselines along the continent and the territorial sea baselines of

⁵⁰⁰ CCTV, 17 July 2011.

⁵⁰¹ Xing Guangmei, "Four Major Misunderstandings about the South China Sea Issue," *Huanqiu Shibao* Online, 28 June 2011.

⁵⁰² Ho Fan, "China and Vietnam Agree to Peacefully Resolve the South China Sea Disputes," *Wen Wei Po* Online, 27 June 2011.

- qualified islands and the continental shelf extending not more than 350 nautical miles within the nine lines of demarcation as a signatory of the United Nations Convention on the Law of the Sea (1982).
- (3) According to the provisions of the 1982 Convention and Law on the Exclusive Economic Zone and the Continental Shelf (1998) concerning historic rights and the relevant rulings of the International Court of Justice, China enjoys priority in such historic rights as fishing, freedom of navigation, and maritime administrative law enforcement in waters outside China's exclusive economic zones but within the nine lines of demarcation. ⁵⁰³

Second, China has the right to take back occupied reefs with force or by peaceful means. Third, there should be no outside intervention in solving the South China Sea issue. Bringing in powers from outside the region will only increase their appetite for interests and will harm trade contacts. Finally, exploitation in cooperation with China will alleviate contradictions. Those who want to intensify contradictions will suffer the consequences. 504

Professor Zhang Zhengwen of the Nanjing Army Command College issued another 2011 hard-line approach to solving the South China Sea issue similar to Xing Guangmei. Zhang noted that the establishment of moral principles, credibility, rules, and "awe" are required as countermeasures. The South China Sea is one of China's core interests, in his opinion. This means that on issues of principle there is no room for compromise. China should increase its military presence and form a strong deterrent force so that other countries will not try to cause trouble in the region. If necessary, China should launch punitive attacks when provoked and safeguard China's sovereignty over the South China Sea. If the issue is to be settled once and for all, dialogue and negotiation

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⁵⁰³ Xing Guangmei.

⁵⁰⁴ Ibid.

should be tried first followed by judicial proceedings. If these fail then force should be used. 505

In contrast to these hard-line approaches there were softer suggestions. One suggestion appeared in a 2011 article by Kuai Zheyuan who noted that there are three keys to solving the South China Sea issue. They are to acknowledge the presence and interests of the US in the South China Sea; to allow ASEAN to know that China will not threaten ASEAN but will protects its safety on land and in the South China Sea; and to bring peaceful solutions to disputes over the South China Sea with Vietnam, the Philippines, Malaysia, and Brunei through bilateral negotiations. ⁵⁰⁶

Rare-earth Elements

This section looks at an internal Chinese strategic resource, rareearth elements, a product for which China leads the world in their extraction and processing. The section will examine the rationale behind China's decision to limit rare-earth production and exports in the past few years and the strategies of China to manage rare-earth elements.

According to Chinese sources, the country has been developing its rare-earth industry since 1968.⁵⁰⁷ US rare-earth expert Cindy Hurst notes that rare-earth elements (REE) are "those chemical elements on the periodic table having atomic numbers 57 through 71 (known as the lanthanides), scandium, and yttrium (atomic numbers 21 and 39)."⁵⁰⁸ These elements are not rare but are difficult to find in high enough concentrations to make them economical to extract from the earth's crust. They are used, according to Hurst, in "hundreds of high-tech applications, including critical military-based technologies such as precision-guided weapons and night-vision goggles."⁵⁰⁹ In 2011 *The*

⁵⁰⁵ Zhang Zhengwen, "In Its Handling of the South China Sea Issue, China Should Adopt Countermeasures that Focus on 'Four Establishments,'" *Huanqiu Shibao* Online, 11 July 2011.

⁵⁰⁶ Kuai Zheyuan, no title provided, *Yazhou Zhoukan*, 17 July 2011, p. 40.

⁵⁰⁷ Cui Ning, *China Daily* Internet Version, 21 January 1998.

⁵⁰⁸ Cindy Hurst, "China's Ace in the Hole: Rare-earth Elements," *Joint Force Quarterly*, Issue 59, 4th Quarter 2010, p. 122. ⁵⁰⁹ Ibid.

New York Times listed the rare-earth elements found in a Toyota Prius: diesel fuel additives (cerium and lanthanum); UV cut glass (cerium); glass and mirror polishing powder (cerium); LCD screen (europium, yttrium, and cerium); sensors component (yttrium); hybrid electric motor/generator (neodymium, praseodymium, and dysprosium, terbium); headlight glass (neodymium); 25+ electric motors throughout the vehicle (neodymium magnets); catalytic converter (cerium and lanthanum); and hybrid NiMH battery (lanthanum and cerium). 510

The Jiangxi, Fujian, Guangdong, Hunan, and Guangxi Zhuang regions are the areas in southern China that are rich in medium-heavy rare-earths. The ion-absorbed rare-earths, or medium and heavy rareearths, are more valuable than lighter rare-earths found in the north, due to their scarcity and wide use in more advanced technologies, according to Lin Donglu, Secretary-General of the Chinese Society of Rare-Earths. 511 Most of the mining licenses for rare-earths in Jiangxi Province are owned by Ganzhou Rare-Earth. The Aluminum Corporation of China Ltd (Chinalco) is set to take a controlling stake in the state-owned Guangxi Nonferrous Metals Mining Group. Along with the Grirem Advanced Material Company the three will together form a joint venture to develop rare-earth resources owned by the Guangxi Rare-Earth Development Company. 512 Northern companies are also being consolidated. A 2011 report notes that the Inner Mongolian Baotou Steel Rare-Earth High-Technology Company is aiming to consolidate thirtyfive rare-earth mining operations by June. 513 The Baotou Rare-Earth Development Zone (built in 1990) in Inner Mongolia, north China, is the primary location for rare-earth resources in China. In 1997 there were close to 145 domestic and overseas companies located there.

⁵¹⁰ Karl Russell, "Many Want Rare Earths, But Few Are Mining Them," *The New York Times*, 6 February, 2011, p. 7.

⁵¹¹ Zhou Yan and Zhang Qi, "Biggest Players to Rule Rare-Earth Sector," *China Daily* Online, 20 May 2011.

⁵¹² Zhang Qi, "Chinalco Obtains Rare-Earth Rights," *China Daily* Online, 12 April 2011.

⁵¹³ Zhang Qi, "Rare-Earth Giant Takes over 35 Smaller Miners," *China Daily* Online, 3 June 2011.

In 1998 China had 36 million tons of proven reserves of rare-earth, nearly 80 percent of the world's total. It was number one in the world in rare-earth output and had nearly 6000 people involved in research. Their work has resulted in the introduction of rare-earth into the metallurgy, machinery, oil, chemical, textile, and light industry sectors. Export volume surpassed 30,000 tons in 1996, which was some 65 percent of the world market. Today, the US Geological Survey (USGS) believes that China has 55 million metric tons of reserves or some 48 percent of the world's reserves. Today China undoubtedly has many more researchers of rare-earth than the 6000 employed in 1998.

In 1999 the State Development and Planning Commission of China proposed four measures to promote the rapid growth of rare-earth products: to exploit deposits in a rational way (to protect China's riches in Baotou and in southwest China's Sichuan province); to expand rareearth marketing and applied technologies (permanent magnet materials, permanent electric motors, etc.); to restructure China's rare-earth industry and reorganize its assets for better product mix; and to reap better economic returns by relying on science and technology.⁵¹⁷ That same year the Land and Resources Ministry of China decided to restrict the further exploitation of rare-earth elements by halting or sharply cutting the issuance of new mining licenses. ⁵¹⁸ Perhaps this was because in 1998 China had exported 44,000 tons of rare-earth, almost one and a half times its export rate in 1996. This was 70 percent of the world's total consumption, while China's domestic market only consumed 15,000 tons. At the same time China continued to encourage foreign investment into the processing of rare-earth. 519

⁵¹⁴ Xinhua News Agency, 0802 GMT, 28 November 1997.

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⁵¹⁶ See http://minerals.usgs.gov/minerals/pubs/commodity/rare_earths/mcs-2011-raree.pdf.

⁵¹⁷ China Economic Information Network, 13 April, 1999.

⁵¹⁸ Xinhua News Agency, 0722 GMT, 29 May 1999.

⁵¹⁹ *Xinhua News Agency*, 0135 GMT, 20 June 1999.

There are a number of rare-earth enterprises in China, with some sources reporting as many as 130 companies. 520 While not specified, it is believed the majority are mining and not processing companies. In 2002, North China's Inner Mongolia Autonomous Region announced a plan to build a "Rare-Earth Valley" in Baotou city. The project would consist of five parks: education, science and technology, pioneering, industrial, and logistics. More than half of the income from the park is expected to be generated by the rare-earth industry. ⁵²¹ In 2004 the China Southern Rare Earth (Group) Corporation was cited as a key rare-earth firm that had merged some twenty companies, to include the Jiangsu, Guangdong, Jiangxi, and Hunan Provinces and Shanghai; and the China Northern Rare-Earth (Group) Corporation was a merger of producers from the Inner Mongolia Autonomous Region, Gansu, Shandong, and Sichuan Provinces in which the Baotou Steel and Rare Earth Company will have ninety percent of the rare-earth reserves. Thus, there was a huge movement to merge many rare-earth producers into a few larger organizations. State legal entities will have a controlling stake in both. Two large companies, the Gansu Rare-Earth Corporation and the China Rare-Earth Holdings based in Jiangsu Province and Hong Kong, declined an invitation to join the two conglomerates. This is not surprising, since the government plans to grant export quotas for the two groups.

Further, the government has stated its intentions not to grant new licenses to other companies within three years of the launch of the two big groups, and they intend to speed up efforts to ban those rare-earth plants without government-issued mining licenses. ⁵²²By 2007 Chinese analysts were calling for more strategic uses of rare-metal and rare-earth elements. Some of the actions requested were:

 Establish an operating mechanism and system for developing mines that both meet market economy

⁵²² Gong.

⁵²⁰ Gong Zhengzheng, "Country's Metal Makers to Merge," *China Daily* (Internet Version), 2 February 2004.

⁵²¹ Xinhua News Agency, 17 September 2002.

requirements and standardize the development of mineral resources.

- Improve the strategic material reserve system in the country.
- Predict the supply and demand status of strategic materials.
- Accelerate site inspections and the development of rare metal resources.
- Expand channels for gaining resources and utilizing these resources.
- Allow newcomers to act as coordinators and managers, especially organizations such as the China Rare-Earth Industry Association.⁵²³

The following suggestion was also put forward, and it appears to be the most realistic (and aims to be the most manipulative):

In order to safeguard national security and accelerate the sustainable development of the national economy, we should attach great importance to rare metal resources from a strategic perspective and we should improve our ability to use our dominance of rare metals to enhance our influence in the international community and improve our ability to regulate the market so as to gain a bigger voice in the international community. In addition, we must make it clear that rare metals are a valuable trump card held by our country. We should promote resource-based diplomacy, particularly with Japan and the US. ⁵²⁴

Another 2007 Chinese tactic was to prevent companies from selling rare-earth elements too cheaply. A 15 percent export tax on rare-earth elements was imposed. Earlier China had cancelled a tax rebate policy on rare-earth elements, but export volumes continued to rise,

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⁵²³ Zhou Shijian and Wang Lijun, "A Strategic Analysis of the Current Status of Rare Metals in Our Country," *Zhongguo Zhanlue Guancha*, 1 January-28 February 2007, pp. 52-60.

⁵²⁴ Ibid.

forcing the government into the export tariff plan. ⁵²⁵ In 2009 the European Union and the United States jointly complained to the World Trade Organization about China's export tariffs and restricted quotas on rare-earth materials. Such measures provided Chinese industries with a substantial competitive advantage in the rare-earth market. China, for its part, defended its policies and said it would consult with the concerned nations. ⁵²⁶ An economist in Shanghai wrote that China's decision to limit rare-earth elements is not the same as imposing a ban on them. However, the analyst offered some advice as well. He believes China should set limits to the export of its national strategic resources and increase as much as possible the export of finished goods. ⁵²⁷ Protecting rare-earth resources and the environment helps insure that China's economic sovereignty remains intact. ⁵²⁸

Meanwhile, rare-earth industry downsizing continued. In late 2008 China proceeded to construct the China Minmetals Rare Earth Company, which aimed at becoming the largest global rare-earth enterprise in the world within five years. The Ganzhou-based company was a subsidiary of China Minmetals Corporation and two private companies, the Hongjin Rare-Earth Company and the Dingnan Dahua New Material Resources Company. 529

In August 2009 the Chinese Ministry of Industry and Information Technology (MIIT) published a "Revised Program for the Development of Rare-Earth Industry 2009-2015." The article deemed MIIT the main policymaker and regulator of China's rare-earth industry. The program was necessary to manage and regulate the more than 1000 rare-earth deposits in China. The program divides China's rare-earth mines into

⁵²⁵ "China Increases Export Duties on Rare Metals," *Renmin Ribao* (Internet Version), 30 May 2007.

⁵²⁶ Qiu Wei, "WTO Case against China Gathers Steam," *Global Times Online*, 24 June 2009.

 ⁵²⁷ Lu Ning, "China Restricts Strategic Resources Exports: Justified and Bold," *Beijing Qingnian Bao* Online, 29 June 2009.
 528 Tao Duanfang, Ji Shuangcheng, Qing Mu, Liu Yang, Wang Xin, and Xiao Da,

[&]quot;China's Rare-Earth Makes the West Nervous," *Huanqiu Shibao*, 3 September 2009, pp. 1, 6.

pp. 1, 6.
⁵²⁹ "China Aims to Build Largest Global Rare-Earth Enterprise," *Xinhua News Agency*, 26 February 2009.

three zones. The South Zone covers Jiangxi, Guangdong, Fujian, Hunan, and Guangxi; the North Zone covers Inner Mongolia and Shandong; and the West Zone covers Sichuan. For the 2009-2015 period, light rare-earth elements will be extracted from Inner Mongolia and Sichuan and, potentially, Shandong. Heavy and medium elements will be extracted from Jiangxi, Guangdong, and Fujian. The program indicates that the state will not grant new mining rights, ratification will be provided by MIIT and not a provincial-level authority, and city-level government agencies will not have the right to approve rare-earth applications and processing enterprises. One source in 2009 even indicated that China's rare-earth reserves had fallen from 85 percent of the world's total to 58 percent.

Rare-earth elements, of course, are viewed as a strategic trump card in some Chinese circles. A 2010 article, for example, indicated that should US companies participate in arms sales to Taiwan, then China, backed by legislation, could ban rare-earth element sales to the US. China also has indirect options, such as imposing tariffs on US part suppliers who want to enter the Chinese market or simply deny them access. China could also enter into destructive competition against US companies on international markets. Still, reducing rare-earth quotas seems to be the way to really strike back against the US. There have been other points of contention and stress with the US, however. In 2003 for example, the Gansu Tianxing Rare-Earth Functional Materials Company was involved in the illegal acquisition of Terfenol-D, used in US naval and aerospace sensors and weapons, through the espionage efforts of Chinese students living in the US.

⁵³⁰ "Revised Program for the Development of Rare-Earth Industry 2009-2015 Completed," *Zhongguo Touzi Zixun Wang*, 15 August 2009.

⁵³¹ Lan Xinzhen, "Resource Restrictions Not Rare," *Beijing Review* Online, 17 October 2009.

Wang Dake, "Consider Banning Sale of Rare-Earth Materials as Sanction against US Companies Involved in Arms Sale to Taiwan," *Dongfang Zaobao* Online, 4 February 2010.

⁵³³ Ray Cheung, "Firm Alleged to Be Conduit for Theft of US Technology," *South China Morning Post* (Internet Version), 6 August 2003.

China has already used rare-earth elements as a bargaining chip from a Western perspective. In the autumn of 2010 a Chinese fishing boat collided with a Japanese Coast Guard boat. This happened in the Senkaku Islands in the East China Sea and the incident was filmed by one of the Japanese Coast Guard's crew. In response to Japan's decision to hold the Chinese fishing boat captain during the investigation, China halted the export of rare-earth metals to Japan, which seriously cramped the plans of the auto and other industries. China cut its rare-earth exports to Japan on 21 September 2010 and to the US and Europe on 18 October. Beijing claims they had begun adjusting their policies before the trawler incident 534

Chinese actions in regard to the trawler incident did one thing for sure—it sent a shock wave of concern to countries that had come to rely on China for their rare-earth supplies. Earlier such incidents didn't produce nearly the negative international response. Some Chinese authors state that a quota system was in place as early as 1998, while in 2006 the country stopped granting new rare-earth mining licenses. In September 2010 the State Council put rare-earth companies on a merger list. Some nations accused China of monopolizing resources and using rare-earth as a means for exerting political pressure. 535

The embargo did not work well in the end for China. The stoppages triggered a harsh response from other nations. Many began to look elsewhere for rare-earth elements and some, like the US and its Molycorp Minerals LLC at Mountain Pass, California, continued with their plans to restart old mines. The positive side is found in events such as the recent Third China Baotou Rare-Earth Industry Forum, held on 8 August 2011. One point of discussion was whether China can enhance further cooperation between itself and foreign companies that also specialize in rare-earth elements. While China is projected to have 48% of the world's rare-earth reserves, Baotou has 80 percent of China's

⁵³⁴ Wang Zhaokun, "Pentagon Sees No Rare-Earth Crisis," *Global Times* Online, 1 November 2010.

⁵³⁵ Lei Min, Wang Jianhua, and Zheng Qian, "China will Cut Rare-Earth Exports next Year, but Not by a Very Large Margin," *Xinhua Asia-Pacific Service*, 2 November 2010.

reserves. Meanwhile, China yearly continues to provide 90 percent of the earth's rare-earth metals. 536

In 2010, according to one US article, China produced 130,000 tons of rare-earth elements, while the US produced zero tons. India was second with 2700 tons, which demonstrates figuratively the world's reliance on China. According to the same article, China leads the world with 55 million tons of rare-earth reserves, with Russia second at 19 million tons, and the US third at 13 million tons. 537 Chinese Premier Wen Jiabao stated in October 2010, shortly after the trawler incident, that the nation will not use rare-earth resources as a bargaining chip, even though most nations had by that time already made up their minds that China had done so. The China Daily Online attempted to explain China's rationale regarding this issue. It noted that rare-earth elements must be cut and prices raised due to environmental problems that stem from producing 90 percent of the world's needs and from the proliferation of small rare-earth companies in China that have allowed the business to sell rare-earth at very low prices at the expense of added pollution.

There was some truth behind the *China Daily* explanation, if not for the fact that these restrictions were applied in conjunction with the trawler incident. Over-exploitation and poor mining habits have caused China to reduce the number of companies and set state prices and quotas. The nation is also implementing restrictions in accordance with laws and regulations. Meanwhile, other large industrialized nations such as the US are not mining any rare-earth elements and are thereby saving their reserves for a rainy day. Further, rare-earth elements are used for military purposes and this is another reason for implementing restrictions on their export. This is a legitimate security concern of China. Chinese

⁵³⁶ "China Economic News in Brief, Shanghai Auto Industry Fund, Rare-Earth Forum, John Deere Engine Plant," *Xinhua News Agency*, 30 June 2011.

⁵³⁷ Scott Canon, "The Race for Rare-Earth," *The Kansas City Star*, 14 June, 2011, pp. 1, 8. Another source, http://minerals.usgs.gov/minerals/pubs/commodity/rare_earths/mcs-2011-raree.pdf, listed the Commonwealth of Independent States as in second place and not Russia.

^{538 &}quot;China Wise to Guard its Rare-Earth Wealth," *China Daily* Online, 20 October 2010

authors such as Jin Gaisong, Vice Director of the International Trade Department of the Chinese Academy of International Trade and Economic Cooperation, stated that the tactic of limiting sales from Western countries to China for security concerns has been used against China repeatedly.⁵³⁹ So it appears that it was China's turn to replay the tactic against the West.

According to a report in **2011**, the Chinese government is setting rare-earth-element quotas based on rare-earth output, market demand, and the need for sustainable development. This system is needed. Between 1996 and 2005 rare-earth exports increased ten times and the price dropped 36 percent. In 2009 China had only 36 percent of the world's rare-earth reserves, as compared to 43 percent in 1996. Today China is closing hundreds of smaller mines (the Ganzhou production base in Jiangxi Province once had 1035 licensed mines) and imposing a 15-20 percent tariff on rare-earth exports. 540 Prices are skyrocketing. An average ton of rare-earth exports cost \$36,297 in January 2011, but by March the price was \$68,305.⁵⁴¹ Japan has had to increase the price of its domestically produced rare-earth magnets, one of its main products, since the prices of neodymium and dysprosium, the key raw materials in magnets, have risen sharply over the past few months. Simultaneously, Japan is trying to keep its auto and electronics industries from being held hostage by Chinese pricing. It has produced a series of actions to thwart such Chinese moves. 542

China's rare-earth strategy appears to be composed of several aspects: first, China seems intent on producing more finished products in the rare-earth field and getting Western nations to buy them instead of raw rare-earth elements. This will provide more income for China and produce more jobs. The nation is focused on developing the entire industry chain in a strategic manner, according to Chinese Rare-Earth

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⁵³⁹ Jin Baisong, "Regulation of Rare-Earth Exports Needed," *China Daily* Online, 24 November 2010.

⁵⁴⁰ Hu Yue, "Even Rarer," Beijing Review Online, 18 January 2011.

⁵⁴¹ Eric Ng, "Beijing Sets Production Limit for Strategic Metals," *South China Morning Post* Online, 25 April, 2011.

⁵⁴² "Rising Rare-Earth Prices Hitting Downstream Industries," *Business China* Online, 8 June 2011.

Society Secretary-General Lin Donglu. Second, China is interested in inviting foreign high-technology companies to move to China to set up shop and thereby be closer to rare-earth resources (but also become another source for the job market, as well as a potential Chinese takeover objective). In 2009, General Motors established the headquarters of its international operation in Shanghai. Chen Zhanheng, director of the Chinese Society of Rare-Earths, noted that rising rare-earth prices could force some industries to transfer from Japan to places where there are rare-earths in abundance. Third, the government is consolidating the scattered rare-earth sector in order to gain more influence over global market pricing and to pave the way for more sustainable growth. Finally, the State Council is allowing China's biggest domestic companies to dominate and lead the industry. This is a different approach to bringing the industry under more state control than has been attempted in the past.

Simultaneously, several issues continue to go unresolved. Some regions are calling for a clear national strategy that sets exploration criteria for rare-earth reserves; for a national reserve system; and for policy incentives that boost technological innovation and application. The State Council issued national guidelines for the development of the rare-earth industry on 19 May 2011 (at www.gov.cn), and several items of concern to the regions were addressed. The guideline is said to raise rare-earths to the level of national strategic reserves for the first time, according to one source. *Business China* Online stated that a strategic stockpile system for rare-earths will be established (which could provide China with more power to influence global prices and supplies). The guideline is designed to handle multiple problems, to include illegal mining, environmental pollution, and a lack of centralization of the industry. The State Council added that the plan is to place 80 percent of the rare-earth industry of the south in the hands of three companies

⁵⁴³ Zhou and Zhang.

⁵⁴⁴ Hu.

^{545 &}quot;Rising Rare-Earth Prices..."

⁵⁴⁶ Zhang Qi.

⁵⁴⁷ "China Tightens Rare-Earth Regulations," *Business China* Online, 24 January 2011.

⁵⁴⁸ "China Issues Guideline to Promote Healthy Development of Rare-Earth Industry," *Xinhua* 19 May 2011.

within two years. In the north, rare-earth production is already in the hands of the Inner Mongolian Baotou Steel Rare-Earth Company. The company has announced that it will establish the Baotou Rare-Earth Products Exchange to "further regulate the market." ⁵⁵⁰

On 28 May 2011 a researcher of the Chinese Society of Rare-Earths provided further details on the rare-earth guidelines. In addition to the three issues mentioned in the Business China release, the document was said to include twenty-two items for regulation. These items included stricter policies on waste emissions standards; regulations to curb smuggling; the implementation of production controls; laws designed to decrease the consumption rate of rare-earth reserves; the phasing out of inefficient energy consumption; the promotion of ways to improve separation, smelting, and application techniques; and the harmonization of the rare-earth industry with local economies and social development. Blame for past acts of surpassing approved output levels were laid at the doorstep of local governments that did not properly supervise private industries in the face of adequate laws and regulations, according to the researcher. 551 Over the past few months, while exports have dropped in total volume by some seventy-six percent, the value of exported rare-earth items has increased by 214 percent. 552 In this sense the guidelines are providing expanded income and reducing pollution as the plan was intended to do.

One other article of interest in 2011 represents China's interest in countering US arguments to prohibit the sale of high-tech items to China via export restrictions and embargoes. Author Sun Yefei detailed the rare-earth elements in US military equipment and stated that he saw no reason to sell rare-earth to the US that might be turned into military equipment posing a threat to China. He wrote that the US Patriot missile's guidance system was composed of four kilograms of samarium-cobalt magnets and neodymium-iron-boron magnets to

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⁵⁴⁹ Tony Zhu, "China Tightens Control of Rare-Earth Industry," *Business China* Online, 20 May 2011.

⁵⁵⁰ Zhang Qi.

⁵⁵¹ Chen Zhanheng, "Rare-Earth Protection Plan," *China Daily* Online, 28 May 2011.

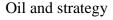
⁵⁵² Shi Xiangjun and Geng Yajie, no title provided, *Neimenggu Ribao* Online, 31 May 2011.

produce electron beam focusing; and that Patriot's control wings contain rare-earth alloys. Further, he detailed the rare-earth components of missile tail fin systems, the electric engines of some naval ships, and US armor's anti-penetration capability. 553

Conclusions: Assessing the Geopolitical Impact

Many of the primary characteristics of the objective-subjective thought process are apparent as one proceeds through the discussions of national interests, the objective environment, oil, the South China Sea, and rare-earth above. The "how" to conduct strategy indicates the following. First, Chinese strategists look at objective conditions and reality via such criteria as the number of forces opposing them, the terrain, the level of science and technology in a country, a country's defense budget, and so on. This is more important than the "operational environment" which drives much US thought. The Chinese then use creativity and stratagems (subjective guidance) to manipulate these objective factors to their benefit. The goal is to attain "shi" or strategic advantage. Strategists are limited based on the economic conditions of the regime (social mode of production determines the type of weapons available) and military history and culture (social conditions of history that influence how force or diplomacy will be used and when).

However, when analyzing Chinese writings on oil and rare-earth, several different strategic topics pop up than those focused on *shi*, stratagems, and the objective-subjective thought process. This indicates that China has significant strategic plans and operations underway but not necessarily the type that fit easily into the three paradigms offered above. Their geostrategy appears to be flexible and adaptable and willing to disregard several issues of intense value to the West (human rights, local corruption, etc.). With regard to African oil and the South China Sea, the following strategic options emerge from the writings used for this paper:



⁵⁵³ Sun Yefei, "Do Not Turn Rare Earth into Thin Mud, and Let the US Military Turn Stone into Gold," *Zhongguo Qingnian* Bao Online, 26 August 2011.

- Manipulating to China's benefit the strategic contradictions and political differences that exist between the parties that own resources and China's rivals (such as the US)
- Participating with international energy investment groups to create more favorable conditions (*shi*) for joint ventures.
- Working to "improve local immunity" in oil communities via developing the local economy instead of the US method of killing off the "illness" through sanctions and human rights
- Working with non-OPEC members of the oil industry, which limits the number of production restrictions on Chinese investments
- Making adjustments to China's "non-intervention" policy in reaction to objective reality
- Offering assistance altruistically, sending people to provide on-site training, and running joint ventures
- Offering financial assistance and taking actions that would not force the other side to make concessions
- Using technologies to upgrade facilities and advance returns on development
- Enhancing Chinese influence through the offering of security protection arrangements
- Using the strategies of limited diversion (sharing overseas oil interests, a gradualist approach that can ease any strategic misgivings of the resource owner) and limited returns
- Strengthening ties with resource owners through trade contacts
- Working to establish bilateral alliances with resourcerich countries
- Providing resource owners with security protection, such as placing peacekeepers in the region in case military force is needed to ensure the security of resources
- Taking risks

 Taking advantage of other nations policies that are driven by human rights or sanctions

South China Sea (transport routes) and strategy

- Establishing a military presence to create a deterrent posture over transport routes
- Developing greater resource, energy, and state diplomacy to create the political, economic, and safe external environment required for transport
- Countering what China believes is a US island chain of deterrence from Japan and South Korea to the Philippines and Singapore
- Establishing a set of coercive tools that get parties to listen to the principle of setting aside sovereignty and promoting joint development
- Making no concessions on the South China Sea issue
- Prohibiting foreign countries from exploring for oil and imposing sanctions on the US if it does so
- Establishing a public relations offensive to enlighten people on China's position
- Prohibiting the US from becoming an arbiter over South China Sea issues
- Coercing all parties to agree to the Declaration on the Conduct of Parties in the South China Sea and preparing to recover islets and reefs if diplomatic maneuvering does not work out
- Focusing on an active versus passive position, such as offering to combat pirates in the area

Rare-earth and strategy

 Consolidating the industry to rid the country of domestic rogue rare-earth companies that mine but care little about the environment and set prices lower than state prices for sales overseas

- Implementing laws and regulations to keep the nation's supply of rare-earth plentiful
- Predicting the supply and demand status of strategic materials.
- Enhancing China's influence in the international market and improving its ability to regulate the market
- Promoting resource-based diplomacy with the understanding that rare-earth is a valuable trump card that can be played when required
- Providing China's Ministry of Industry and Information Technology (MIIT) with the ability to grant mining rights, ratify mines, and approve applications and processing inquires
- Using rare-earth as a bargaining chip (this is a US understanding of Chinese rare-earth strategy, based upon Chinese actions in the East China Sea: when a Chinese fishing boat collided with a Japanese Coast Guard boat, the Chinese boat Captain was detained, and China halted rare-earth exports to Japan until the case was adjudicated); China has indicated that rare-earth shipments could be halted to the US if arms sales continue to supply Taiwan (Chinese Premier Wen Jiabao has publicly stated that rare-earth elements will not be used in this way, as a bargaining chip)
- Limiting world supplies, since other nations appear to be stockpiling rare-earth buys from China and putting them in their reserves for a rainy day
- Producing more finished products in the rare-earth field, so that other nations have to depend on China not only for rare-earth elements but also for finished products as well; holding hostage other nations' industries with Chinese pricing
- Inviting high-tech Western companies to move to China to produce finished products, allowing China to get a high-tech infrastructure as well out of the deal
- Bringing the rare-earth industry under state control

• Turning US strategy (based on a reluctance to authorize shipments of technical equipment to China that can be integrated into its military equipment) on its head by refusing to send rare-earth elements to the West that can be used in military equipment

China's economic rise is dependent on strategic resources, especially energy resources. In addition to core, general, and major interests, China has designated the search for strategic resources as an expression of "developmental interests," a category that is important to the various subdivisions of national interests. At the same time that China searches for new energy resources it must find a way to reduce its reliance on coal and develop industries with a higher science and technology content thereby enabling it to become more "green." To achieve this goal China plans to devote 10 trillion yuan (about \$1.5 trillion) to develop seven strategic industries over the next five years, a plan still under discussion in late 2010. These industries are alternative energies, new generation information technology, biotechnologies, highend equipment manufacturing, advanced materials, alternative-fuel cars, and energy-efficient and environmentally protective technologies. 554 It is hoped that the plan will help compensate for the rise in economic and environmental prices that China has paid for the dramatic rise in its comprehensive national power and people's welfare. 555

With regard to information technology, China is seeking to prepare a new grand strategy with information at the center of attention according to Zhang Xinhua, editor of the book *Information Security: Threats and Strategy*. Two areas of this strategy are the science and technology area (security and safety of digital space) and the political area, where soft power rules. Opportunities abound to improve or exploit information sovereignty, information hegemony, information permeation, information domination, and information contamination in

⁵⁵⁴ Hu Yang, "China's \$1.5 Trillion Industries Boost Not yet Official: Report," *China Daily* online, 6 December 2010.

⁵⁵⁵ Jian Guocheng, "Reviewing Restructuring in China and Looking Ahead to Changing the Developmental Model in the 12th Five-year Program," *Xinhua Domestic Service*, 23 February 2011.

Zhang's opinion.⁵⁵⁶ Strategic goals "can be achieved by destroying or manipulating the flow of information on computer networks to destroy an enemy's telephone networks, oil pipelines, power grids, traffic management systems, systems for transferring state funds, systems for transferring accounts, and healthcare systems."⁵⁵⁷ This means that "the key to success may be in proficiently practicing strategic management of information capabilities. Thus what lies at the heart of grand strategy is paying attention to information security and building and applying information strategy."⁵⁵⁸

In summary, China's geostrategy is developing on several fronts. The methods are flexible and vary in accordance with the issue under consideration, as the list of strategic objectives under each category above indicates. The issue is to find a way to attain a comprehensive strategic advantage and the main goal is to position strategic objectives within the scope of national interests.

David Finkelstein, an expert on Chinese military strategic guidelines, notes that new strategic guidelines for the Chinese military are issued in response to changes in the international order; to the international or regional security environment; to China's domestic situation; and in the nature of warfare itself. ⁵⁵⁹ China's assessment of its current geostrategic situation would indicate that, even though adjustments have been made since the last guidelines of 1993, new guidelines could appear in the next year or two. The appearance of a new discussion over China's core and developmental interests support this contention.

China's needs are clear. It must acquire an abundant supply of energy to meet the requirements of its people. One of the ways is to do all it can to go to a source of oil that is not dependent on OPEC, that being African oil. In so focusing its attention on that continent, China

⁵⁵⁶ Zhang Xinhua, editor, *Information Security: Threats and Strategy*, 2003, publisher unknown, p. 54.

⁵⁵⁸ Ibid., p. 53.

⁵⁵⁷ Ibid., p. 48

⁵⁵⁹ David M. Finkelstein, "China's National Military Strategy: An Overview of the 'Military Strategic Guidelines," *Asia Policy*, No. 4 2007, pp. 67-72.

must also secure the oil's passage through the South China Sea. Its military capabilities, especially the Navy, are being built up to support that proposition. In that sense, China's objective view of reality has changed since its Navy is stronger than in the past. This has resulted in subjective policies that will hopefully, from their point of view, provide the strategic advantage it seeks to control both the oil resource and its passage to refineries in China. Threats appear to play a prominent role as well. On 29 September 2011, Long Tao, a strategic analyst of China's Energy Fund Committee, stated in the Global Times Online that it was "time to teach those around the South China Sea a lesson," and that China should strike first before things get out of hand. 560 Minnie Chan discussed Long's article in the South China Morning Post Online on 30 September. Chan noted that some 2000 internet users supported Long's view. Also of note was that an anonymous retired PLA colonel stated that war will be inevitable if the Philippines and Vietnam push China into a corner. 561 Thus the issue continues to get hotter and hotter.

Internally, China has plenty of rare-earth elements and should be able to supply them internationally. However, from an outsiders view, China appears to be trying to corner the market, the pricing mechanism, and the finished product industry. Internally, China had to corner its own rare-earth companies and put the industry under state control. That has been accomplished. China lacked some of the internal capabilities to process rare-earth elements and so it has sought to bring foreign companies with such capabilities into China and thus acquire more access to the finished product industry.

In each case, China is focused on manipulating objective reality to fit its internal situation and to obtain a strategic advantage. Thus far China's geostrategic plan appears to be unfolding in spite of the few constraints put on it. China's geostrategic approach will require close scrutiny in the coming years as China advances further as a world power.

⁵⁶⁰ Long Tao, "Time to Teach Those Around the South China Sea a Lesson," *Beijing Global Times Online*, 29 September 2011.

⁵⁶¹ Minnie Chan, "Wage War in the South China Sea," *South China Morning Post Online*, 30 September 2011.

Nations must ensure they understand China's strategy if they hope to escape being ensnared by it and subjugated to it.

PART THREE: WHAT ARE THE ELEMENTS OF THE PLA'S STRATEGIC PLANNING PROCESS? HOW DO THEY COMPARE WITH U.S. STRATEGIC NEAR EQUIVALENTS?



CHAPTER EIGHT: COMPREHENSIVE NATIONAL POWER, CAMPAIGNS, AND SHI VERSUS DIME, PMESII-PT, AND SHAPING

Introduction

Strategy is defined and applied in different ways in China and the US. For example, there are differences in transparency issues in China and the US with regard to strategy. The US publishes both a *National Security Strategy* and a *National Military Strategy*, which the Chinese do not. Some in China have noted that their lack of strategic transparency keeps US analysts guessing and thus contains an element of deterrence, since it is unclear what strategic policy defines and explains in China. On rare occasion, China does produce "Military Strategic Guidelines," which is the closest document to an actual national military strategy. ⁵⁶²

Another difference lies in how China and the US visualize the contemporary environment due to differing analytical frameworks. Based on the discussion of Marxism in Chapter One, it should come as no surprise that China's thought process causes it to look at the "objective" environment, while the US military focuses on the "operational" environment.

These two varying prisms for examining the security environment are explored below. The discussion first examines the meaning of the terms "strategy" and "campaigns" in Chinese thought and "strategy" and "operations" in US thought. It then proceeds to examine how the elements of military thought and the analytical techniques of each nation affect outcomes.

It is important to remember that as China exploits the concepts of

Background

comprehensive national power (CNP), campaigns, and *shi*, it does so under the guidance of the objective reality-subjective initiative paradigm. First, it is important to understand the other side's way of thinking. Second, military strength is measured. Commanders envision the combat

⁵⁶² See Appendix Two for a summary of David Finkelstein's excellent presentation of this concept.

power of both sides as well as potential strength achieved through alliances. Once on the battlefield, each side makes a comprehensive evaluation of the objective factors before them. This results in both commanders exercising their subjective initiative (usually in the form of a stratagem, based on an understanding of the way their opponent thinks) to create the conditions to best the other in combat. The application of subjective thought to objective factors (combat power, time, space) results in campaign guidance, sometimes referred to as direction or organization.

The Battle of Meanings

It is extremely difficult to neatly categorize Chinese and US levels of war and their various products or sub elements. There are various factors influencing this difficulty. The most important are, first, the openness of US definitions versus the closed nature of the Chinese system. It is easy to go online and find US military definitions in either joint publications or individual service manuals. US knowledge of the Chinese system is much less specific, as their manuals are usually classified and definitions can only be obtained from encyclopedias or other similar (limited) open sources. There are no joint publications or field manuals for examination. Second, US definitions of the same term found in service and joint publications can vary in meaning, making the classification and priority of terms difficult to prioritize. For example, while the joint world uses the acronyms METT-T or PMESII, the army uses the terms METT-TC or PMESII-PT. Due to a lack of access to Chinese terms, it is not known if they experience similar issues.

China appears to use a larger frame of reference and appears to envision not an operational environment, a focus for the US military, but rather a strategic environment through the window of two factors: an assessment of a nation's comprehensive national power (CNP) or objective reality; and how this assessment might result in the development of a strategic advantage (*shi*) through the exploitation of

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⁵⁶³ METT-T is mission, enemy, weather and terrain, troops and support available, and time available. The army addition of "C" is for civil considerations. PMESII is political, economic, military, social, infrastructure, and information. The army addition of PT is for physical environment and time.

certain factors via subjective analysis. The *Chinese Military Encyclopedia* defines strategy as "The analytical judgment of such factors as international conditions, hostilities in bilateral politics, military economics, science and technology, and geography as they apply to the preparation and direction of the overall military/war plan." Campaigns are the next level below strategy, although it is difficult to assess if they coincide with the US concept of campaigns or operational art. One Chinese military source defines a campaign as "combat operations consisting of a series of battles conducted by a large formation under a unified command to achieve a local or an overall objective in a war." Most Chinese publications discuss strategy, campaigns, and tactics in that order, so the place of campaigns in China's hierarchy appears well established. China's objective reality and *shi* concepts apply to campaigns as they would to CNP.

Joint Publication 1-02, the Department of Defense Dictionary of Military and Associated Terms, uses the concept of the "operational environment (OE)" to discuss the contemporary environment. The OE is defined as "a composite of the conditions, circumstances, and influences that affect the employment of capabilities and bear on the decisions of the commander." It appears from the definition that commanders at all levels of war are thus affected by the OE. The US defines three levels of war: strategic, operational, and tactical.

The US military defines strategy as "a prudent idea or set of ideas for employing the instruments of national power in a synchronized and integrated fashion to achieve theater, national, and/or multinational objectives." The strategic level of war is "the level of war at which a nation, often as a member of a group of nations, determines national or multinational (alliance or coalition) strategic security objectives and guidance, then develops and uses national resources to achieve those

⁵⁶⁴ Entry on strategy in the *Chinese Military Encyclopedia*, 1997, Volume 3, p. 699.

Wang Houqing and Zhang Xingye, *The Science of Campaigns*, National Defense University Press, 2000.

⁵⁶⁶ Joint Publication 1-02, Department of Defense Dictionary of Military and Associated Terms, online version as amended through 15 August 2013, p. 205. ⁵⁶⁷ Ibid., p. 264.

objectives."⁵⁶⁸ The US definition thus appears to be more focused at implementing the ends, ways, and means process. By definition, China's concept of strategy includes an analytical judgment of various factors and appearing, at least, more comprehensive.

JP 1-02 defines an operation as "a sequence of tactical actions with a common purpose or unifying theme." The second meaning of operations is "a military action or the carrying out of a strategic, operational, tactical, service, training, or administrative military mission." The operational level of war is defined as "the level of war at which campaigns and major operations are planned, conducted, and sustained to achieve strategic objectives within theaters or other operational areas." A major operation is defined as "A series of tactical actions (battles, engagements, and strikes) conducted by combat forces of a single or several Services, coordinated in time and place, to achieve strategic or operational objectives in an operational area." A second meaning is "for noncombat operations, a reference to the relative size and scope of a military operation." A campaign is defined as "a series of related major operations aimed at achieving strategic and operational objectives within a given time and space." 573

JP 1 clarifies the US's concept of the levels of war as a hierarchy in figure 1-2. The right side names the "products" of each level. ⁵⁷⁴ In the diagram, battles and engagements are listed as the "products" of the tactical level of war. JP 1-02 defines the tactical level of war as "The level of war at which battles and engagements are planned and executed to achieve military objectives assigned to tactical units or task forces." ⁵⁷⁵ Thus there is some ambiguity in where battles actually fit. The US appears to consider a series of related battles under major operations,

⁵⁶⁸ Ibid., pp. 263-264.

⁵⁶⁹ Ibid., p. 204.

⁵⁷⁰ Ibid.

⁵⁷¹ Ibid., p. 205.

⁵⁷² Ibid., pp. 169-170.

⁵⁷³ Ibid., p. 33.

Joint Publication 1, Doctrine for the Armed Forces of the United States, 25 March 2013, p. I-7.

⁵⁷⁵ Ibid., p. 273.

while unrelated battles appear to fit under the tactical level of war. Interestingly, *JP 1-02* does not define a battle. China appears to put battles under campaigns. The *Chinese Military Encyclopedia* defines a campaign as "a series of operations conducted by an army group or force of equivalent size under unified command following a unified plan in order to achieve objectives tied to a specified area or objectives that will affect the war situation as a whole;" and a battle as "the total result produced by a large force conducting a series of combat actions within a certain area over a certain period of time aimed in a specific direction in order to achieve specified campaign objectives." 576

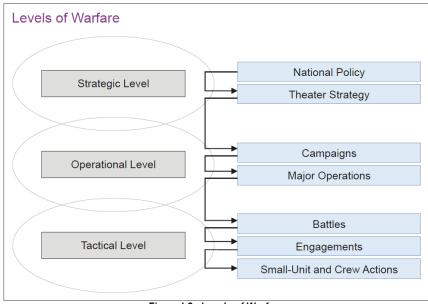


Figure I-2. Levels of Warfare

The US military appears to use two primary methods (among others) through which to better visualize the contemporary environment at the strategic and operational levels of war. At the strategic level the so-called instruments of national power, i.e., diplomatic, information, military, and economic (DIME) elements, are examined. The operational

⁵⁷⁶ *Chinese Military Encyclopedia*, 1997, Volume 3, p. 748 and Volume 2, p. 299, respectively. Translation provided by Dr. Gary Bjorge, Command and General Staff College, Fort Leavenworth, Kansas.

variables that make up the operational environment are political, military, economic, social, information, infrastructure, physical environment, and time (PMESII-PT) elements.⁵⁷⁷ They affect campaigns and major operations, the products of the operational level of war, according to *FM 3-0, Operations*.⁵⁷⁸

The US concept of shaping is a near equivalent to the Chinese concept of *shi*. One shapes to attain an advantage of some sort, whether at the strategic, campaign, or tactical level.

The following analysis considers the positives and negatives of the Chinese and US approaches. It is presumed that the reader is familiar with the basics of the US concepts, resulting in that section being much shorter than the Chinese assessment.

China's CNP, Campaign, and Shi Concepts

It is possible that the concept of CNP, developed in the 1980s during the time of Deng Xiaoping's reign, may have had its theoretical roots in an ancient precedent. Sun Tzu's *Art of War*, one is reminded, discussed temple calculations. These were attempts to look at all sides of a situation before engaging forces. The counting rods mentioned in the first chapter of that classic appear to be a way of figuring out whether success was possible. Marshall Liu Bocheng, President of the Chinese Military Academy in the 1950s, noted that the concept of "winning without fighting," mentioned in the third chapter of the *Art of War*, implies using comprehensive means, which he lists as political, military, economic, and technical resources. He also stresses that there is a relationship between war and diplomacy, astronomy, geography, politics, and economics. These final calculations are important, as they inform leaders before a decision is made whether to engage in war or find an alternate way to win. ⁵⁷⁹

⁵⁷⁷ FM 3-0, Operations, 27 February 2008, pp. 1-5.

⁵⁷⁸ Ibid.

⁵⁷⁹ Tao Hanzhang, translated by Yuan Shibing, *Sun Tzu's Art of War*, Sterling Innovation, 2007, pp. 14-15.

During the past three decades the topic of CNP has been discussed in the Chinese military press. Sometimes the concept is translated as comprehensive national strength or even as all-round national strength. A quick look through the years indicates the progression of the concept and what it implies today. Interestingly, the term is barely mentioned in China's military *White Papers* on national defense from 2000 to the present time, making one wonder about its current relevance or whether the Chinese purposely are hiding the term. However, the term is usually present in the annual US survey of China's military power, especially in the chapter "Understanding China's Military Strategy."

In a 1999 interview with Huang Shuofeng, perhaps China's leading expert on CNP, the concept was described in the following way:

All-round national strength [CNP] refers to a combination of the total strength of a sovereign state, on which it depends for its existence and development, and its international influence. This includes both natural and social factors, material and spiritual factors, actual and potential strength, and also the mechanism by which potential is converted into actual strength; it is the organic integration and total sum of the mutual roles of key elements such as a state's politics, economy, science and technology, culture, education, military affairs, diplomacy, and national will and cohesion. ⁵⁸¹

Huang noted that China's CNP has now turned from weak to strong. Science and technology are the precursors for this movement and economic strength the foundation. Huang notes that the country must persist with the strategy of rejuvenating the country through science and education. ⁵⁸²

⁵⁸⁰ For the remainder of the paper, the translator's initial wording will be given, after which CNP will be substituted.

Ou Can, "Reform and Opening Up: The Great Enhancement of All-Round National Strength—Interview with Huang Shuofeng," *Jiefangjun Bao*, 15 June 1999, p. 5. June 1999, p. 5.

In 2007 the Academy of Military Science journal, *China Military Science*, noted that war under informatized conditions is no longer just a confrontation between military systems and military strength, but rather a contest of "comprehensive national strength [CNP] that involves all social realms such as the political, economic, diplomatic, and cultural realms." Military strategy and decision making are integrated with these factors under the guidance of national interests. 584

In 2009 the same journal noted that with new security threats and challenges, and the rise of China's CNP, the content and forms of China's national interests will emerge and develop differently than in the past. It appears that the Chinese believe the issue of CNP developments thus will affect the overall national security situation as new national interests are sought out for exploitation or protection. Former President Jiang Zemin stated that contemporary international competition is nothing but a contest for CNP superiority based on economic and technological power. National security depends on fortifying or improving the quality of CNP elements. This will lead to China finding itself in a favorable position in the world. 866

Yet another 2009 *China Military Science* source described the recent history of CNP as composed of both foreign and domestic perspectives. The works of foreign experts Carl von Clausewitz, Hans Morgenthau, Raymond Aron, Samuel Huntington, Ray Kline, and Joseph Nye were said to contain CNP references. With regard to China, the article noted that long ago, the *Art of War* contained the notion of CNP. The notion of winning, according to Sun Tzu, could be found in an examination of the five fundamental factors. The terms used to

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⁵⁸³ Deng Yifei, "A Revolution in Military Thinking in the Information Age," *China Military Science*, No. 6 2007, pp. 71-78.

⁵⁸⁴ Ibid.

⁵⁸⁵ Chen Zhou, "On the Development of China's Defensive National Defense Policy Under the New Situation," *China Military Science*, No. 6 2009, pp. 63-71.

⁵⁸⁶ Huang Yingxu and Li Ming, "On CPC Members' Outlook on National Interests," *China Military Science*, No. 6 2009, pp. 1-11.

⁵⁸⁷ Long Fangcheng and Li Decai, "On the Relationship of Military Soft Power to Comprehensive National Power and State Soft Power," *China Military Science*, No. 5 2009, pp. 120-129.

designate these factors, like all other parts of the *Art of War*, depend on who is translating the Chinese text.⁵⁸⁸

Three Chinese CNP experts were singled out in the 2009 article: Huang Shuofeng, Wang Songfen, and Hu Angang. Huang will be discussed in greater detail later. Wang noted that CNP "is the organic aggregate of all types of power possessed by a sovereign state in a certain period." It assists in providing a foundation for the survival and development of all countries, and is the foundation for the world's powers for establishing their international status, wielding their international influence, and playing their international role. CNP can be thought of as the aggregate collection of all factors, such as resources, economics, politics, science and technology, education, military affairs, social development, and international relations. These factors lead to social survival and development during a specific time and in a particular space. ⁵⁹⁰

Hu Angang stated that CNP is "the aggregate of all sorts of national strategic resources." ⁵⁹¹ CNP integrates its components and its power elements, such as natural conditions or cultural traditions that affect CNP's character. ⁵⁹² Earlier, in 2006, Hu had noted the importance of increasing the defense proportion of the nation's gross domestic product in order to preserve economic stability. He noted that defense expenditures should be increased to prevent the nation's economic construction from being disrupted by Taiwanese separatist activities or by foreign forces' aggression. Considering armed forces modernization activities in China's national economic and social development programs

⁵⁸⁸ Two US and two Chinese translations, respectively, of the five factors demonstrate such differences: Roger Ames (the way [Tao], climate, terrain, command, regulation); Victor Mair (the way, heaven, earth, generalship, method); Lin Wusun (the way, heaven, earth, command, rules and regulations); and Yuan Shibing (politics, weather, terrain, commander, doctrine).

⁵⁸⁹ Long and Li.

⁵⁹⁰ Ibid.

⁵⁹¹ Ibid.

⁵⁹² Ibid.

will, in Hu's opinion, bring about a simultaneous increase in China's CNP and defense capability. ⁵⁹³

The 2009 article then goes into depth regarding the impact of soft power on CNP. State soft power is referred to as a country's capability to make people accept its ideology and values. State soft power makes its social system and development model attractive and is capable of implementing policies and development strategies. It requires national creativity, the power of cultural influence, and the power of influence in international affairs. Next the article highlights the importance of culture's ability to impact CNP, state soft power, and military soft power. Finally, the article notes how military soft power depends on the development of CNP and state soft power. That is, they all impact on one another at some point. ⁵⁹⁴

An important point developed before the article concluded may have been the key focus and purpose of the authors all along. In informatized wars, they note, controlling intangible resources is now stressed. This includes the knowledge and intelligence/information contained in technology, media devices, and the human brain. These are important attack targets for the use of military soft power. In informatized wars activities are often based on computers and the Internet, making social and political life more dependent on information systems. The authors note

Paralyzing the enemy country's economy, causing social turmoil in the enemy's country, imposing the will of war on the opponent does not need large-scale engagements in a traditional sense, and can be effected in a form of 'soft' attacks through network attacks, hacker invasions, and large-scale medial warfare, psychological warfare, and legal warfare through news media. Thus the boundary

⁵⁹³ Sun Zifa, "China's National Defense Construction Falls behind its Economic Development; Hu Angang Urges an Increase in National Defense Expenditure," *Zhongguo Xinwen She*, 4 June 2006.

⁵⁹⁴ Long and Li.

between the state of peace and the state of war will become fuzzy. 595

Such changes give increasing prominence to military soft power's precursory role in CNP and state soft power.

Another term closely related to CNP is national strategic capabilities. National strategic capabilities refer to a state's ability or power to design and formulate national strategies, thereby translating CNP into the means for attaining strategic goals. ⁵⁹⁶ A formal definition of the term is:

So-Called national strategic capabilities refer to a nation's capabilities of turning strategic resources into its strategic intention and achieving its strategic objective. A nation's strategic capabilities predetermine the nation's vision and aspirations, and directly determine the nation's behavior and status in the international system. National strategic capabilities are a gigantic and complex dynamic 'system of systems' covering the political, economic, military, science and technology, cultural, and other domains. ⁵⁹⁷

In a 2010 article in the military press, it was noted that thinking about military strength and comprehensive national strength results in the development of national strategic capabilities. CNP is thought to be unable to deal with the nation's comprehensive security issues at the moment, due to a lack of strategic capability. Thus, the country is focusing on creating favorable strategic conditions and an environment conducive to national security and development. Strategic capabilities are designed to carry out war and to prevent crises from arising and to control conflict escalation in the first place. This is known as the "art to

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⁵⁹⁵ Ibid.

Wang Zhengchun and Guan Zhongquan, "Dispel Confusion Concerning National Strategic Capabilities," *Zhongguo Guofang Bao* Online, 15 August 2011, p. 3.
 Shen Genhua, "On Core Military Capabilities in the Information Age," *China Military Science*, No. 2 2011, pp. 44-52.

maneuver" CNP to one's advantage. ⁵⁹⁸ Thus, fighting with CNP could mean using political or economic means as maneuver devices as CNP competition becomes more and more intense.

CNP, some believe, has helped to improve informatized warfare. This is because CNP is an expression of "system versus system" confrontations between two hostile sides.⁵⁹⁹ One article in the official journal of the Central Committee of the Communist Party of China stated that information superiority is becoming a key factor determining the future of CNP. 600 Further, the role of military force in CNP competition is becoming a bargaining chip for settling disputes. 601 Xi Jinping, in a speech at a plenum of PLA delegates, noted the importance of increasing China's CNP index. He stated that CNP has been substantially enhanced in the past 30 years, especially through reforms and opening up, which has laid a foundation for building national defense and a powerful military force. Xi added in July 2013 that science and technology are the "core and focus of the competition of comprehensive national strengths in today's world. Now every major country is striving to stand in the commanding position of future science and technology, including national defense technology."602

No US author has covered the topic of CNP and Chinese future war thinking to the same degree as Michael Pillsbury did in the late 1990s. He examined the CNP calculations of not only the Academy of Military Science (AMS) but also the Chinese Academy of Social Sciences (CASS). In keeping with the focus of Chapter One ("Where Karl Trumps Carl") of this book, Pillsbury writes that a number of

⁵⁹⁸ Wang Xingwang, "National Strategic Capability: New Leverage Point for Dealing with Comprehensive Security," *Jiefangjun Bao* Online, 12 February 2009, p. 10.

⁵⁹⁹ Guo Yan and Huang Guizhi, "New Characteristics of Military-Civilian Integration in the Information Age," *Guofang*, No. 7 2011, pp. 22-24.

Jiang Yong, "Cyberspace: An Invisible New Battle Domain," *Qiushi*, No. 13 2010.
 "China Voice: China's Armed Forces Strengthen under Scientific Development," *Xinhua* (in English), 13 September 2012.

⁶⁰² Li Bin, "Xi Jinping Stresses the Need to Deepen Reform of the System of Science and Technology in Order to Strengthen the Vitality of Scientific and Technological Innovation While Earnestly Implementing the Strategy of Driving Innovative Development during an Inspection Tour of the Chinese Academy of Sciences," *Xinhua*, 17 July 2013.

authors cite Marxist-Leninist theory as a foundation for CNP studies. 603 This analysis will only look at the AMS process.

One of Pillsbury's major sources was Colonel Huang Shuofeng, mentioned earlier, who is perhaps the most informed Chinese expert on CNP to speak on the topic publicly. In Huang's book, *On Comprehensive National Power*, he takes credit for coining the term while working with Deng Xiaoping in 1984. This work appears to be the classic source on the topic. Huang writes, "Comprehensive National Power research is done in order to accurately analyze the international strategic situation and evaluate the comprehensive power of enemy states, allies, and one's own country for the purpose of scientifically planning one's own national strategic decision making." 604

He uses theoretical research, systems theory, and mathematical methods to develop his qualitative and quantitative analysis. CNP represents an objective reality assessment of the strategic environment. Huang cites Marx, Engels, and Mao as precedents for guiding his thoughts on CNP. CNP is a dynamic process, but establishing superiority in CNP does not automatically spell success, as things change over time, and the subjective input of commanders, leaders, or scientists can dramatically change earlier calculations. Qualitative factors impacting on CNP include technological advancements, economics, strategy, population, national territory, and international influence.

Huang describes CNP as a system composed of many levels or subsystems. The four major index subsystems of his assessment are material, spiritual, coordinated, and environmental power. Material power includes the sub elements of natural resources, economics, science and technology, and national defense. Spiritual power includes politics, foreign affairs, culture, education, and psychological and intellectual soft power factors. They help determine material power's effectiveness. Coordinated power includes organizational, command, management, and

⁶⁰³ Michael Pillsbury, *China Debates the Future Security Environment*, National Defense University Press, 2000, p. 207.

⁶⁰⁴Pillsbury, quoting Huang Shuofeng, p. 222.

⁶⁰⁵ Ibid., p. 212.

decision-making criteria. Finally, environmental power assesses international (balance of power), natural (geography, ecology, etc.), and social (stability, etc.) factors. Altogether more than 18 factors are under consideration.

Huang's CNP index system is multilayered with subsystems and sub-subsystems. For example, the science and technology subsystem of material power includes a sub-subsystem of scientists and engineers, technological personnel, investments in science and technology, the level of science and technology expertise, the systems utilized, and contributions to the field, among other elements. The national defense sub-subsystem includes nuclear, conventional, and reserve forces, as well as national defense investment, technological progress, industrial construction, education, and ideology.

Huang further states that CNP continually evolves. CNP changes with time and with changes in the world's structure. He writes that CNP changes with the interchange of energy flows, material flows, and information flows of science and technology (he believes a type of "motion equation" is needed to explain this flow). Huang adds that his equations are "in keeping with the universal relations principle in the Marxist materialist dialectics theory system." Pillsbury offered a detailed description of Huang's CNP "function" and CNP "system" equations, both of which are beyond the scope of this paper.

In his second book, *On the Rise and Fall of Nations*, Huang writes that CNP strengths and weaknesses measure [predict?] the rise and fall of nations. He notes that the original CNP equation measured only strength at a given time without stating how the factors under consideration could influence a nation's development. For example, are environmental factors in one's own hands or dependent on another source? What if a poor strategic decision making factor is part of the calculus? However, Huang explains, adaptation and fulfillment of the

⁶⁰⁶ Ibid., p. 234.

⁶⁰⁷ Ibid., p. 233. For this detailed description of the Academy of Military Sciences dynamic equation, see Pillsbury, pp. 232-238.

domestic needs of citizens can help overcome such potential setbacks. ⁶⁰⁸ Regardless, CNP competition will remain fierce. It could result in destruction through nuclear war, in forcing a side into a fatal position, in unequal coexistence, or in cooperation and reliance. ⁶⁰⁹ Pillsbury also includes other estimates of CNP in this interesting chapter of his book.

While CNP is the objective reality aspect of strategy, *shi* can be thought of as the subjective aspect. *Shi*, or strategic advantage, can be directly extracted from the CNP analysis. There will be quantitative numbers in the CNP process that indicate where and under what circumstances China has superiority or advantage. Where it does, *shi* means taking advantage of the situation or using CNP factors to create an advantage. As Chinese General Tao Hanzhang has noted, *shi* is "the strategically advantageous posture before a battle that enables it to have a flexible, mobile, and changeable position during a campaign." ⁶¹⁰

There are preliminary conditions to help ensure a strategic advantage: superior strength and weapons, favorable terrain, excellent training, and resourceful commanders. Tao writes that a commander must bring the enemy to the battlefield and not be brought there by him; must flexibly use topography and employ troops flexibly, according to the position and conditions of the enemy and one's own forces; must make the enemy move by creating a situation, according to which the enemy will act; and must seek victory from the situation and not demand it of his subordinates. One has to first analyze and deliberate "on the fighting capacity and advantages and disadvantages of one's own army and of the enemy." Taking account of one's disadvantages, Tao notes, is the only way to uncover and overcome difficulties in one's own force.

⁶⁰⁸ Ibid., pp. 240-242.

⁶⁰⁹ Ibid., p. 242.

⁶¹⁰ Tao Hanzhang, Sun Tzu's Art of War: The Modern Chinese Interpretation, Sterling Innovation, 2007, p. 124. The title of Chapter Five (Shi) in Tao's translation of The Art of War was "posture of the army," p. 44.

^{6&}lt;sup>1</sup> Ibid., pp. 125, 15-16, 46.

⁶¹² Ibid., p. 121.

⁶¹³ Ibid., p. 189.

The book The Science of Campaigns defines a campaign as "combat operations consisting of a series of battles conducted by a large formation under a unified command to achieve a local or an overall objective in a war."614 Chapter Two of the book is titled "Objective Factors of a Campaign." Objective factors are noted as campaign strength, the campaign battlefield, and campaign time, when activities exist. Strength is composed of firepower and mobility, as well as capability in the following areas: surprise, electronic warfare, support, command and control, reconnaissance, logistics, protection, integrated operations, and so on. The ground battlefield is discussed in terms of the natural geographic environment, the human environment, economic conditions, and transportation and communications. The sea, space, and air environments have factors specific to their use. Time can be viewed as continuous, phased, sequential, controlled, or synergizing. It is used to create opportunity, which is close to the idea of shi. Subjective factors are mainly man's subjective initiative and command ability. commander's wisdom and talent lie in his ability to use stratagems and ingenuity. Mobile, positional, guerilla, and traditional warfare means are buttressed by the use of man's subjective factor. Subjective guidance must conform to objective realities. Campaign activities are focused more on taking the initiative in active offense than the strategic guidance of active defense, according to The Science of Campaigns. 615

It would appear that these items fill out what is known as China's "military strategic guidelines." The guidelines are not issued often, thus they are seldom in the press. According to one report, the guidelines have been issued only four times since 1949. They are designed to maintain the nation's territorial sovereignty, national interests, economic development and reform, and internal (i.e., social) and external stability. The guidelines are provided to enable the realization of the state's strategic objectives. ⁶¹⁶

⁶¹⁴ Wang Houqing and Zhang Xingye, *The Science of Campaigns*, National Defense University Press, 2000.

⁶¹⁵ Ibid.

⁶¹⁶ David M. Finkelstein, "China's National Military Strategy: An Overview of the 'Military Strategic Guidelines," Chapter Three in *Rightsizing the People's Liberation Army: Exploring the Contours of China's Military*, Roy Kamphausen and Andrew Scobell, editors, publication of the Strategic Studies Institute, U.S. Army War College,

The US's PMESII-PT, DIME, and Shaping Concepts⁶¹⁷

Army Field Manual 3.0, Operations, noted in 2008 that "military planners describe the operational environment in terms of operational variables. Operational variables are those broad aspects of the environment, both military and nonmilitary, that may differ from one operational area to another and affect campaigns and major operations."618 The operational variables under consideration are: political, military, economic, social, information, infrastructure, physical environment and time, often referred to as PMESII-PT. The variables are said to describe military aspects of and a population's influence on the operational environment. These variables are designed to help leaders understand how the military instrument "complements the other instruments of national power" (often referred to as DIME, which stands for diplomatic, information, military, and economic). A comprehensive analysis comes at the joint level. It is unclear how these variables help explain the instruments of national power or DIME better, since all but one of the instruments already are part of the variable process. That is, the process could be viewed the opposite way, how DIME informs PMESII-PT! DIME appears to be located at the strategic level of analysis and PMESII-PT at the operational level. If that analysis is true, then US strategic analysis, in terms of items assessed, is less comprehensive than the Chinese CNP analysis.

The 2008 *FM 3.0* notes that "the utility of the operational variables improves with flexible application..." In a sense, the eight operational variables of PMESII-PT could be thought of as representative of the People's Liberation Army's concept of objective reality, or looking at material things, and flexible applications could be associated with subjective guidance. However, there appears to be no overall plan to utilize the analysis as some sort of overriding strategy.

Carlisle PA, September 2007, pp. 82, 108. As mentioned earlier, see Appendix Two for a summary of this concept.

⁶¹⁷ Since most US analysts are familiar with these two concepts, their descriptions will be brief. This is an army analysis and not a joint analysis, which can be found in *Joint Publication 3.0, Joint Operations*, 2011.

⁶¹⁸ FM 3.0, 27 February 2008, p. 1-5.

⁶¹⁹ Ibid.

Acronyms to describe the US Army's operational environment use both old and new developments, and thus are expanding. Mission variables represent the old and are those "aspects of the operational environment that directly affect a mission."620 They are mission, enemy, terrain and weather, troops and support available, time available, and civil considerations (METT-TC) and are considered the categories of relevant information used for mission analysis. They synthesize operational variables with local knowledge about conditions relevant to their mission. 621 In addition to DIME and PMESII-PT there is now DIMEFIL (diplomatic, information, military, economic, finance, intelligence, law enforcement), MIDLIFE (military, intelligence, diplomatic, law enforcement, information, finance, economic), and ASCOPE (areas, structures, capabilities, organizations, people, and events). The problem is that different branches of service use different terms. FM 3.0 should overrule them all but that, unfortunately, is not the case, especially as we have entered the era of WikiDoctrine. 622 The environment is thus becoming more confusing as more acronyms are added. The US process seems to start and end with a consideration of the variables at both the strategic and operational levels, and strategy appears based on an ends, ways, and means process. The Chinese approach, although its comprehensive approach seems to be matched by the plethora of US acronyms, may be slightly more interactive although it is also more confusing due to the difficult equations required to explain CNP.

If there is an equivalent process associated with China's *shi* concept and attempt to attain a strategic advantage, it appears to be the US concept of shaping. Aspects of the operational environment become essential elements in shaping how Army forces conduct operations. A shaping operation is "an operation at any echelon that creates and preserves conditions for the success of the decisive operation." Shaping not only establishes conditions for the decisive operation through effects on the enemy, population (including local leaders), and terrain but also may

⁶²⁰ Ibid., pp. 1-9.

⁶²¹ Ibid.

⁶²² Discussion with Dr. Harold Orenstein, former US Army doctrine terminologist, November 2013.

⁶²³ FM 3.0, p. 5-11.

occur throughout the operational area and involve any combination of forces and capabilities before, during, or after the decisive operation begins. The concept of operations describes how shaping operations contribute to the decisive operation's success, often in terms of the purpose.624

Dr. Geoffrey Demarest, in his excellent work, Winning Insurgent War, notes that it matters how knowledge is organized. He wrote that there are a few non-PMESII-PT ways to organize knowledge. They are: alphabet; Google or other Google-type engines; geographically; chronologically; systems of knowledge established by the disciplines accepted in US universities, according to who, what, where, when, why, and how; for complicated conflict situations; names of persons associated with an idea; according to type of knowledge (foundational, events, reasoned [observations, correlations, anomalies, patterns, trends, systems, complaints, demands, consequences], and knowledge about knowledge); according to the manner in which the knowledge is gained; and according to the categories in the CIA World Factbook. The desire is to organize knowledge about a society in order to determine how susceptible it might be to organized coercion, etc.625

Demarest notes that the line and block diagram can be a real thought killer, but it can also establish hierarchy, responsibility, accountability, or leadership. It can help trace and correlate attributes. When buzzwords or acronyms are used to organize knowledge rather than just to make a teaching point, knowledge suffers, and decision making in turn. Be careful, he warns. If one is told to use PMESII-PT because "that's the way the boss wants it," then the boss should be careful not to hamstring creative thought with inflexible semantics. 626

Conclusions

The methodologies of the Chinese and the US at the various levels of war are difficult to pinpoint due to varying levels of openness in the two nations. However, some basic comparisons can be drawn.

626 Ibid., p. 392.

⁶²⁵ Geoff Demarest, Winning Insurgent War, FMSO Publication, 2011, p. 391.

China's CNP process is similar in design to the US concept of DIME, although it is much more comprehensive in nature; China's concept of campaigns is somewhat similar to the US's operational environment concept and PMESII-PT; and China's concept of *shi* is somewhat similar to the US's concept of shaping. It is important to stress "near parallels" and "near equivalents" between the concepts of these nations, because differences remain!

China's CNP examination of the strategic environment looks at more than 18 factors as opposed to the four factors of the US concept of DIME. This indicates that China's strategic view is more comprehensive than the US's. The US counters this comprehensive view at the operational level, where the US examines a host of factors. China's campaign level factors are more limited. China's strategic view is more interactive, since the Chinese compare these factors in other countries with those in China. Therein they find a way to establish a strategic advantage or *shi*, looking for weaknesses while remaining flexible and innovative. The US, on the other hand, appears much more adept at shaping the operational environment. The PMESII-PT concept and other acronyms offer several indicators to take into consideration and apply to the shaping process. The US usually does not address the term "strategic advantage" but instead uses the concept of "creating conditions for the success of the decisive operation."

Overall, the Chinese system appears to offer a larger assessment tool from which to shape issues of a strategic nature. It goes into more depth than the ends, ways, and means assessment of many US analysts or either the DIME or PMESII-PT process. US analysts would do well to look closely at this system and see if there are elements or thought processes that might benefit our strategic analysis assessment system. The US focus on the operational environment, on the other hand, addresses operations more completely than does the Chinese concept of campaigns. It is here where the Chinese might learn from us. They have already learned a lot, their writings note, from watching US and coalition activities in the recent conflicts in Iraq and Afghanistan.

CHAPTER NINE: THE U.S.'S "MILITARY POWER OF THE PRC" (2003-2013) VERSUS CHINA'S "NATIONAL DEFENSE WHITE PAPERS" (2000-2012): TWO DISCUSSIONS OF CHINESE STRATEGY

Introduction

The continuous development and application of strategic thought helps ensure a nation's security and modernization. For China strategic thought is a definite strength. The concept of strategy is imbedded in the country's DNA, dating back to the time of Sun Tzu and perhaps earlier.

Nations have come to visualize and conceptualize strategy in different ways. They usually do not evaluate their external and internal environments in like manner, drawing on traditions, cultural proclivities, ideologies, threat perceptions, border concerns, and other issues to contrive their understanding of strategy and how it should be applied.

For over ten years the U.S. Department of Defense has evaluated Chinese strategy in a document known as the *Military Power of the People's Republic of China*. When examined chronologically one can ascertain how the Pentagon has viewed Chinese strategy and where it discerned changes over the years. Further, after analyzing the reports from a ten-year vantage point, it is also possible to identify what the Pentagon considers to be the focal points of Chinese strategy versus other independent views.

Also for over ten years now the Chinese have been writing *White Papers* on national defense. Strategy is mentioned, but not nearly to the same extent as in the US reports. The elements of Chinese strategy highlighted in the US report were not highlighted in the Chinese report, except for the terms "active defense" and "development strategy." This is understandable. A US report on its military in a *White Paper* would also probably not include a detailed background on how US strategy is perceived and implemented.

The following analysis will evaluate the US Defense Department's understanding of Chinese strategy as reflected in the *Military Power* documents from 2003-2013 and contrast that

understanding with the Chinese *White Papers*. The analysis starts with a summary of the general findings of the comparison.

Up Front Analysis of the Reports

US Reports

Most of the key ingredients of China's military strategy are covered exceptionally well in the reports. The continued focus on comprehensive national power (CNP), strategic windows of opportunity, Deng Xiaoping's "24-charater strategy," a listing strategic priorities and objectives, and the highlighting of specific Chinese topics associated with strategy have made the reports, year by year, a valuable resource for veteran analysts, as well as those newly minted. Analysts can find good summaries of topics such as anti-access or area denial strategies, the development of cyber and space assets, how deception fits into strategy, and how the modernization effort is tied to strategy. The discussion of issues such as territorial disputes and critical sea lanes enables a better understanding of why China's strategies may be directed in certain ways. Overall, then, the Military Power reports are an excellent source of information for understanding where the People's Liberation Army (PLA) is headed. There are minor issues that could make the reports better, however.

For example, slippage has occurred with the use of the important concept of *shi* (obtaining a strategic advantage, which seems to have been replaced in importance by windows of opportunity over the years). The US needs to keep a close watch on where the PLA is attempting to build a strategic advantage that can be exploited through negotiations, in time of war, or simply by utilizing specific advantages uncovered through China's CNP analytical concept (explained later).

Further, the reports note that "Chinese linguists" suggest the following definitions of *shi*: the alignment of forces, the propensity of things, and the potential born of disposition. It is confusing as to why these linguists are cited instead of Chinese sources such as *Campaign Stratagems* and others, which offer definitions from respected military analysts:

Shi is situation, status, and state of affairs; the combination of the friendly situation, enemy situation, and the environment; trend in affairs; the integrated situation that has an impact on the effective performance of military strength; sum of all factors impacting the performance of the operational efficiency of both sides; general confrontational situation; hub of increase and decrease in operational efficiencies of two sides; the key factor determining the rise and fall of operational efficiency. 627

More attention to the use of Chinese definitions would improve other areas of the report as well. Chinese definitions of strategy and asymmetric warfare are available, for example, but they are not used. Knowing how the Chinese define such terms provides an insight into how they understand them. Without this, not only is it difficult for a US analyst to comprehend the essence of Chinese thinking in this area, but he also runs the risk of erroneously templating the US understanding of such terms onto the Chinese model. Today, the same discussion is being held over definitions of cyber issues. The Chinese are unwilling to talk about these issues until definitions are sorted out.

Only one or two of the US reports mentioned Marx at all, and then only in passing. None of the reports covered the attention directed his way in PLA publications. Clearly the Pentagon does not see the objective-subjective paradigm discussed frequently in PLA publications to be an important element of their military strategy concept. This might be a mistake.

From report to report, some of the same factors were renamed or categorized differently. For example, the section "factors shaping China's leadership perceptions in 2013" (economics, nationalism, regional challenges, environment, demographics, and other categories

⁶²⁷ Zhang Xing Ye and Zhang Zhan Li, *Campaign Stratagems*, National Defense University, 2002.

year to year) was listed under the heading "strategic priorities" (and potential problems) in 2011; listed under strategic priorities (and forces that could reinforce an inward focus) in 2010; listed as factors shaping pathways to China's future (and forces that could reinforce an inward focus) in 2009; and listed as factors shaping pathways to China's future (and as drivers and inhibitors to enable and constrain their ability to achieve objectives) in 2008. This might be considered nitpicking, of course, but does demonstrate how confusion can be imbedded in discussions when the same issue is renamed over time.

Several points in the reports raise questions, perhaps because there is little space to expand on them and provide an adequate explanation. The idea that ancient thought was being revived in the past several decades left one wondering—when did it ever go out of style? Some reports seemed to ignore cultural and traditional differences. The statement that China's strategic motivations, intentions, and decision-making processes remain secret was odd—don't all nations feel this way to some degree? And haven't the Chinese indicated their feelings regarding several specific issues? When a Chinese state councilor states that "we will absolutely not allow Taiwan to be separated from China and will definitely make no promise to give up the use of force," motivations and intentions are perfectly clear.

Overall, it is important to state that the reports represent a succinct and most valuable asset to US analysts and others wishing to better understand Chinese strategy. The minor issues listed above are stated only to help make the reports even better.

Chinese Reports

There is not much to dispute in the Chinese *White Papers* regarding strategy, because they seldom address the topic as it is used in the US reports—where strategy's elements are broken out. Rather, general uses of the term are noted, such as in conjunction with other terms like military strategy or security strategy. The implementation of the strategy of active defense was stressed in each report, as was the concept of development. Mention was made in several of the reports of the need to develop China's science and technology strategies, as well as the offshore defense strategy of the Navy. However, there was never a

detailed explanation of just what Chinese strategy entails, most likely because this is an area China does not wish to discuss. Or it may be that the term is inherently understood among PLA writers and not worthy of further explanation in the PLA's opinion. However, the PLA extensively uses the adjective "strategic" in several combinations, a fact discussed in more detail below.

With regard to the term "comprehensive national power," which is so widely considered in the US reports, it was never used in the seven reports under consideration; this, however, could simply be a matter of translation. The term comprehensive national security was used twice in 2004, the term comprehensive national strength was used twice in 2010, and the term comprehensive security was used twice in 2013. It is likely that the term "strength" or "security" was used in place of "power." Overall, however, neither CNP nor *shi* received the attention it did in the US report. In the seven reports examined here, Marx was mentioned once (as in Marxism-Leninism), while Deng Xiaoping's theory (but not his "24 character strategy") was mentioned twice in one report and once in another. Thus, from the standpoint of strategy, the Chinese document is much less useful than the US *Military Power* reports, if gaining an understanding of Chinese strategy is the goal.

US Reports

2003 US Report⁶²⁸

The table of contents (TOC) of the 2003 annual report on the *Military Power of the People's Republic of China* (hereafter, MPPRC) notes that in Section II, "Goals and Trends in Chinese Strategy," the following topics are covered: grand strategy (goals, sources), security strategy (assessments, trends), and military strategy (trends). In spite of the stated goal, the report notes that China has not articulated a grand strategy or national security strategy, at least not one that has been released to the public.

Goals and Trends in Chinese Strategy. The document defines grand strategy as the "overall strategy of a nation or an alliance of

⁶²⁸ Since Internet copies were used for these reports, no footnotes are provided. All quotes come from the Internet version of the documents in question.

nations in which they use overall national strength" to achieve national political goals. Unfortunately there is no citation for this definition. Grand strategy, then, is described as a way to balance comprehensive national power (CNP) and the "strategic configuration of power" (shi). These are two very important aspects of Chinese strategy, and the authors impressively define both. CNP, which first appeared in the early 1980s, compares various aspects of the strategic situation among countries. The approach, developed by the PLA's Academy of Military Science in 2003, was to apply a quantitative and qualitative evaluation of politics, economics, military, science and technology, and foreign affairs to determine relative CNP. The concept of shi is used to assess challenges or threats to China and to exploit opportunities to advance national interests through the correct application of power. National unity, stability, and sovereignty are the domestic and international conditions to maintain via these concepts and, if these three factors are threatened, then reestablishing a favorable shi "would override the goal of developing national power," according to the MPPRC authors.

The sources of grand strategy were discussed. Marxist and Maoist ideology as well as wartime experiences were noted as "prevalent in China's approach to grand strategy." Another source of strategy is Deng Xiaoping's "24 character strategy." It is a long-term strategy designed to build up China's CNP. China appears to have an integrative security assessment strategy that even finds inclusion in the dual-hat concept of party cadres combined with government positions. China has attempted to advance its interests through the development of a positive and cooperative image in 2003, to include a more moderate stance toward Taiwan. The military is seen as vital to ensure that China's economy will thrive, and it received resources to accelerate its modernization effort in spite of the primary commitment to the economy. Trends in China's military strategy include information operations, missiles, airpower, political and psychological intimidation, economic coercion. The closest document to a U.S. national military strategy in China remains the "National Military Strategic Guidelines." The modernization and leadership transition were the titles of the next two sections, and the term "strategy" was not mentioned in any of the sub-sections. However, strategic concerns were implied in sections titled "the role of nationalistic hacking," "the role of surprise and pre-emption in local conflicts," and in "operational considerations

technologically superior adversaries." Other sub-sections were devoted to modernization, systems, and capabilities.

2004

The TOC of the MPPRC lists the role of national strategy as a subsection of Section I, "Drivers for Force Modernization." Section II, "Trends in Military Strategy, Doctrine, and Training," includes China's views on the use of force and China's military strategy.

The Role of National Strategy. In this section, as in 2003, CNP and the strategic configuration of power were stressed. The latter term was used six times in two pages and it was not associated with the Chinese term shi. National unity, stability, sovereignty, and Deng Xiaoping's "24 character strategy" were also mentioned. Later in the section the term "grand strategy" was used in place of the article's title, "national strategy." Here it was noted that "China's grand strategy has been influenced primarily by a combination of the ancient tenets of Chinese statecraft as well as more modern national development theory." Further, it was noted that other factors (maintaining control over the heartland of China and major Inner Asia elements, securing the coast, land boundaries, and maritime territory [populated by rivals and enemies]) also help determine strategy. The concept of strategic ambiguity was declared a mechanism that helps influence the policies of foreign governments. The PLA was designated as the safeguard of China's national strategic goals, and the security environment was characterized as composed of internal and external spheres, with the latter being composed of the following: great power relations, the situation along the periphery, the status of China's relations in the developing world, and nontraditional security issues. The section on external spheres in the MPPRC is quite good.

Trends in Military Strategy, Doctrine, and Training. In Section II China's military strategy is stated to be "active defense." The authors of the MPPRC call this characterization ambiguous, since evidence suggests a distinctly offensive character to strategy once hostilities begin. Active defense "calls for forces to be postured to defend against perceived security threats...China's leaders seek not only to react but also to positively shape their security environment..." Active defense could also be used for coercive purposes.

2005

The TOC of the MPPRC states that Chapter Two is titled "Understanding China's Strategy," with sub-sections titled cooperative, candid, and constructive U.S.-China relations; images of China's future; direct insights into China's strategy are few; and military modernization..beyond Taiwan. Chapter Three, "China's Military Strategy and Doctrine," includes sub-sections dealing with deception in military strategy, the strategic direction of PLA modernization, and implications when lifting the European Union arms embargo.

Understanding China's Strategy. There are few direct insights into China's strategy. In Chapter Two the MPPRC notes that China's strategic documents and White Papers must be accompanied by a look at what China has accomplished in order to understand its strategy. An overall goal seems to be maintaining a balance between national economic development and a proper security environment. CNP and the strategic configuration of power (or shi) were mentioned again, although several more definitions of shi were added. These include the alignment of forces, the propensity of things, and the potential born of disposition. A write-up of resource demands as a driver of strategy was included, apparently as a type of development strategy that would increase China's CNP. Deng's "24-character strategy" was mentioned. Military planners, the paper states, are surveying the strategic landscape beyond Taiwan in an effort to manipulate the strategic configuration of power to their advantage. This includes the development of new missiles with extended range, air force early warning and general C4ISR improvements, and naval moves in the South China Sea and East China Sea to control economic assets and sea lines of communication. The section concludes noting that, as China's military power grows, "China's leaders may be tempted to resort to force or coercion more quickly to press diplomatic advantage, advance security interests, or resolve disputes."

China's Military Strategy and Doctrine. In Chapter Three, the MPPRC notes that China does not have a document like the U.S. National Military Strategy. The MPPRC document then states that "we can discern that China uses the term 'active defense' to describe its national military strategy." The document notes, however, that the 2000 book, *The Science of Campaigns (Zhanyi Xue*), states the emphasis is

placed on the active offense. The use of *moulue* (strategic deception, according to the report) was stressed, as well as the notion that "over the past several decades, there has been resurgence in the study of ancient Chinese statecraft within the PLA." Another important topic was the strategic direction of PLA modernization, where the idea of implementing the theory of conducting "local wars under conditions of informationalization" was stressed. Interestingly, Marx was mentioned in this write-up in the following way: "The PLA's future joint force has been influenced by U.S. capabilities and concepts and by Soviet/Marxist-derived characteristics of warfare, but will unlikely mirror either."

2006

The TOC of the MPPRC report states that Chapter Two of this report, "Understanding China's Strategy," has three sub-sections: China's uncertain future, strategy with Chinese characteristics, and military modernization...beyond Taiwan. Chapter Three, "China's Military Strategy and Doctrine," has two sub-sections, deception in Chinese military strategy and the strategic direction of PLA modernization.

Understanding China's Strategy. Chapter Two states that China's future is uncertain, since there are many strategic factors over which China will not have control. These include the military modernization process, which is of course susceptible to budget priorities and scientific discoveries; nationalism, which the party relies upon to shore up its legitimacy; economic growth; pressures for more political liberalization; corruption; nontraditional security challenges (mass incidents, disease, etc.); and its global security roles (responding to North Korean actions, etc.). In the section titled "Strategy with Chinese Characteristics" China's grand strategy is defined as maintaining balance among competing priorities in order to sustain momentum in economic development and maintaining favorable trends in the security environment so development can occur. Topics still deemed crucial to understanding Chinese strategy include Deng's "24-character strategy," CNP, 629 and the strategic configuration of power or *shi*. The Chinese

⁶²⁹ CNP is stated to be "the concept by which China's strategic planners evaluate and measure China's national standing in relation to other nations. It includes qualitative

Academy of Social Sciences ranks China sixth among the top ten nations in the world based on their CNP methodology. The MPPRC states that China's national development strategy, since the early 1980s, has been to increase its CNP. With regard to geopolitical thought, and China's need to push beyond Taiwan, Lieutenant General Liu Yazhou was quoted as stating that "The sole purpose of power is to pursue even greater power...Geography is destiny...when a country begins to rise, it should first set itself in an invincible position." Further, a growth in military power increases China's ability to use coercion to "press diplomatic advantage, advance interests, or resolve disputes."

China's Military Strategy and Doctrine. In Chapter Three Mao was quoted as saying, as he was in the 2005 report, "you fight your way and I fight my way." It was noted that there is no equivalent to US's National Military Strategy, and that winning local wars under conditions of informationalization was enabled through the use of information technology as a force multiplier. It was surmised that China's "National Military Strategic Guidelines for the New Period" feature an operational component, which is active defense, and an organizational component, which is new-period army building. Active defense, according to The Science of Campaigns (Zhanyi Xue), determines that justice is on China's side. Where China's use of force involves its core interests (sovereignty, territorial claims), Beijing could state that preemption is a strategically defensive act. Non-war use of force could involve missile strikes, assassinations, and sabotage. Interestingly, strategic deception's goals are defined as "to lure the other side into developing for misperceptions...and [establish oneselfl strategically to a advantageous position by producing various kinds of false phenomena..." The strategic direction of PLA modernization appears to be enabling ground forces to adapt an offensive posture with deep battle concepts available; naval forces able to protect sea lines of communication; and an air force that can handle out-of-area offensive capabilities. All forces must have integrated C4ISR, automated command and control, joint operations, information operations capabilities, and greater mobility in operations. Special operations forces

and quantitative measures of territory, natural resources, economic power, diplomatic influence, domestic government, military capability, and cultural influence."

and local wars under the conditions of informationalization received special emphasis and explanation.

2007

The TOC of the MPPRC report states that Chapter Two, "Understanding China's Strategy," lists six sub-sections: overview; strategy with Chinese characteristics; stability, sovereignty, and strategy; balance, position, and strategy; resource demands and strategy; and other factors influencing the future direction of Chinese strategy. Chapter Three, "China's Military Strategy and Doctrine," has four sub-sections: overview, military strategic guidelines, asymmetric warfare, and the role of secrecy and deception in Chinese military strategy.

Understanding China's Strategy. Chapter Two begins with an assessment of the characteristics that determine Chinese strategy, noting that the Chinese do not provide an overarching grand strategy with its goals and how to achieve them. As in 2006, economic performance and nationalism are listed as the pillars on which the Party bases its legitimacy. CNP, the strategic configuration of power or *shi*, and Deng's "24-character strategy" were all discussed or listed. Stability, sovereignty, balance, and position are all concerns for developing strategy and maintaining legitimacy. Increasing demands for resources such as oil and metals were noted as becoming a more "urgent influence on China's strategic behavior."

China's Military Strategy and Doctrine. Chapter Three stressed the necessity to fight and win local wars under conditions of informatization. It referred to several items from past MPPRCs and included two separate sections of interest. One was on whether the PLA might be developing a preemptive strategy, and the other was on the development of a comprehensive view of warfare. The idea of asymmetric warfare options also received notice in a smaller subsection. These options included ballistic and cruise missile systems, undersea warfare systems, and counter space systems; computer network operations; and special operations forces.

2008

The TOC of the MPPRC report notes that Chapter Two, "Understanding China's Strategy," has four sub-sections (two fewer than

2007): overview; strategy with Chinese characteristics; insights on China's strategy and priorities; and factors shaping pathways to China's future. Chapter Three, "China's Military Strategy and Doctrine," has five sub-sections: overview; military strategic guidelines; toward a comprehensive view of warfare (the only new section since 2007); secrecy and deception in PLA military strategy; and asymmetric warfighting.

Understanding China's Strategy. Even though grand strategy is an inexact science, since there is so little available on the topic for foreign consumption, it is still possible to make some generalizations about it according to this MPPRC. It is a strategy of maintaining balance among competing priorities. CNP was mentioned as a way to discuss strategy, a method that incorporates both soft and hard indicators of strength. Deng's 24-character strategy was mentioned but shi or the strategic configuration of power was not. Links between internal and external dimensions of strength were examined. Enduring strategic priorities appeared to be the perpetuation of Party rule (via nationalism and economic performance), sustained economic development, domestic political stability, the securing of China as a great power, and defending national sovereignty and territorial integrity. Territorial disputes and critical sea lanes were highlighted in separate boxes. Factors shaping China's future included economics, demographic pressures, domestic political pressures, corruption, the environment, cross-strait dynamics, and regional concerns.

China's Military Strategy and Doctrine. China's desire to win local wars under conditions of informationization was mentioned. China's National Military Strategic Guidelines for the New Period and the active defense concept were also mentioned. Separate sections were devoted to three topics: offense as defense; the People's Armed Police (PAP); and the Chinese assassin's mace program. Naval forces were said to focus on six offensive and defense campaigns. Ground forces were said to be modeling reforms on Russian doctrine and U.S. military tactics. The air force was described as becoming more flexible and agile, able to operate offshore in both offensive and defensive roles. Space warfare was included as a force component for the first time. C4ISR operations were listed as the enablers and coordinators of joint operations. Three non kinetic warfare types (psychological, media, legal)

a concept approved in 2003, were highlighted as well. Asymmetric war fighting again received separate billing, where it was noted that even a strong enemy has weaknesses that can be attacked.

2009

The TOC of the MPPRC report notes that Chapter One, "Understanding China's Strategy," has five sub-sections: overview; strategy with Chinese characteristics; insights on China's strategy and priorities; factors shaping pathways to China's future; and looking to the future, the only new section from 2008. Chapter Two, "China's Military Strategy and Doctrine," has six sub-sections: overview; military strategic guidelines; toward a comprehensive view of warfare; secrecy and deception in PLA military strategy; asymmetric warfighting; and PRC debates on future military strategy, the only new section from 2008. A subsection titled "Strategic Capabilities" is listed under Chapter Three.

Understanding China's Strategy. Deng's "24-character strategy" is noted on the first page of this chapter, as is Hu Jintao's concept of needing a harmonious world. Both are strong suggestions as to shaping a stable external environment so that China's internal environment will also be stable. CNP was mentioned as incorporating both soft and hard factors; the enduring strategic priorities were restated, as well as the need to support reform and opening up. Resource needs were listed separately as a factor in China's strategy, since economic growth requires more access to markets and resources. Natural gas, nuclear power reactors, oil, and supply contracts with a diverse range of suppliers were listed in this section. A separate section and map was devoted to China's territorial disputes, and a map depicted China's critical sea lanes. Finally, factors shaping China's future were listed, which included continuing economic development, handling demographic and domestic political pressures, fighting corruption and easing environmental concerns, stabilizing crossstrait dynamics, and avoiding regional instability.

China's Military Strategy and Doctrine. This chapter stressed China's interest in winning local wars under informatization conditions. It stressed that China does not have a national security, defense, or military strategy document, but it does have a paper, *National Military Strategic Guidelines for the New Period*, which is not available for outside scrutiny. Active defense is posited as the defensive military

strategy of China although the book, *Science of Campaigns*, is quoted as offering a different emphasis: "the essence of [active defense] is to take the initiative and to annihilate the enemy." Further, the emphasis "is placed on taking the initiative in active offense. Only in this way can the strategic objective of active defense be realized." Naval, ground, and air warfare were discussed in a manner similar to 2008. There were several new sections, such as "PLA Reserve Forces and China's Militia," "Evolution of Joint Operations," and "Integrated Network Electronic Warfare." Finally there was a section titled "PRC Debates on Future Military Strategy." It noted that economic growth and development is dependent upon sustained international stability and security access to foreign markets. A new concept, "Far Sea Defense," emphasized multidimensional precision attacks beyond the first island chain, which is outside of China's claimed 200 nautical mile EEZ.

2010

The TOC of the MPPRC report only has one chapter devoted to strategy. Chapter Two, "Understanding China's Strategy," has seven sub-sections. Five of the seven are repeats from 2009 in some form. The two new sub-sections are the new historic missions and China's military strategy. In addition, a short section on "Strategic Capabilities" was listed in Chapter Three, as it was in 2009.

Understanding China's Strategy. One of the more interesting additions to this section was the entire listing of the personalities of the Central Military Commission, the General Staff departments, the military regions, the service arms, and senior command/research academies. Strategic priorities did not change. PRC strategy was defined as one of maintaining balance. One new factor shaping China's future was nationalism, defined in 2010 as a force that could reinforce an inward focus or that could divert China from a peaceful pathway. This was not listed as an issue in 2009. The strategic priorities were the same as before, but a new listing of core interests was added: safeguarding the basic system and national security, national sovereignty and territorial integrity, and sustained and stable economic and social development. Deng's 24-character strategy was mentioned, and in the debate on future strategy it was noted that new capabilities should be developed to protect and advance China's interests beyond its traditional requirements. New historic missions (as codified in a 2007 amendment to the Chinese Communist Party Constitution) were listed as guaranteeing the strength of the party, guaranteeing the safeguarding of the period of strategic opportunity for national development, safeguarding national interests, and safeguarding world peace and promoting common development. The MPPRC notes that these changes were required due to changes in China's security situation, challenges to national development, and the necessity to realign PLA tasks with Party objectives. President Hu Jintao stated that "operations other than war" must be carried out as well. These included counterterrorism, maintaining social stability, disaster relief and rescue, and international peacekeeping operations. Other non-war activities included protecting sea lanes, cyber warfare, security of spaceconducting military diplomacy, and preparing for based assets, unexpected conditions and events. A special section was devoted to "Military and Security Aspects of Beijing's Regional Energy Strategy." The section on "China's Military Strategy" noted that the long-term goal was to build a force capable of fighting and winning "local wars under conditions of informatization." Chinese documents continue to suggest that overall guidance is provided by the document know as the "National Military Strategic Guidelines for the New Period." The guidelines are designed to ensure military, political, diplomatic, economic, cultural, and legal coordination of endeavors in order to ensure deterrence capabilities and prevent conflict.

Strategic Capabilities. This section from Chapter Three discussed China's offensive nuclear, space, and cyber warfare capabilities. The MPPRC notes that these are the only aspects of China's armed forces "that currently could be used to pose a global threat." China has asserted a "no first use" policy, is developing more mobile systems, is qualitatively and quantitatively improving its strategic missile force, and, as a result, continues to maintain an overall "sufficient and effective" deterrent. Other strategic capabilities that were discussed included space and counter space capabilities, reconnaissance, manned space, navigation and timing, communications, anti satellite weapons, and information warfare capabilities.

2011

The TOC of the MPPRC report notes that Chapter Two, "Understanding China's Strategy," has six sub-sections identical in title to the 2010 report, while one section, asymmetric warfighting, was left

out of the 2011 MPPRC chapter. One section was added to the 2011 report, a section titled "understanding Chinese strategy," which is almost identical to the chapter title. Similar to the 2009 and 2010 reports, there is a section in Chapter Three titled "Strategic Capabilities."

Understanding China's Strategy. This chapter begins, as did other MPPRCs, with references to CNP (noting that China's position has improved substantially in relation to other powers), China's window of opportunity, and the need to keep stable relations with the U.S. and its neighbors. It then switches to a discussion of Chinese strategy, noting that China uses White Papers, speeches, and articles to communicate policy and strategy. The 2010 Defense White Paper, the MPPRC states, notes that China is implementing active defense, enhancing national strategic capabilities, maintaining China's no-first-use nuclear policy, and fostering a security environment conductive to comprehensive development. Transparency has improved due to the development of White Papers, the availability of defense spokespersons, the construction of a defense website, and wider military coverage in books and the media. Three important additions were special sections, "Military Decision Making Structure and Processes in China," "China's Upcoming Military Leadership Transition," and "China Debates Its National Security Strategy in 2010." Strategic priorities remained the same, modernization programs were noted as paying visible dividends, and core interests were listed as political stability, territorial integrity, and sustained development. Potential problems remained the same, with one exception: the addition of "growing expectations," whereby China could be taking on more responsibility than the leadership can handle. Deng's "24-character strategy" was noted, and the external environment was highlighted as important to manage if economic development and military modernization were to continue. The new section on "China's Military Strategy" did not reveal anything new. It covered the National Military Strategic Guidelines for the New Period, noted the existence of network-centric, asymmetric, and anti-access area denial (A2AD) capabilities, and reviewed concepts of naval, ground, space, air, and integrated network electronic warfare.

Strategic capabilities. This section from Chapter Three ("Force Modernization Goals and Trends") discussed progress in nuclear, information warfare, and space and counter space capabilities, as did the

2010 chapter. There was little difference in the two versions. However, this year's discussion included a special section on "PLA Underground Facilities"

2012

The TOC of the MPPRC report has two chapters on strategy, Chapter One ("Chinese Military Strategy and Doctrine") and Chapter Four ("China's Taiwan Strategy"). No detailed outline of the subsections of the chapters was listed in the TOC. The report was very short and the strategy chapters (one and four) contained a total of seven pages.

Chinese Military Strategy and Doctrine. Twenty-first century strategic windows of opportunity for growth and development were noted in the overview to the chapter. These windows must be taken advantage of through the Party's foreign and security policies. Strategic objectives were the same as listed in previous reports. Winning local wars under condition of informatization was noted, as well as a reference to the *Military Strategic Guidelines for the New Period* and the "active defense" strategy. Territorial disputes and new historic missions were mentioned along with non-war operations. In short, this was the shortest treatment of strategy in the documents to date.

China's Taiwan Strategy. The MPPRC notes that Beijing has employed a mix of incentives that increase the benefits for Taiwan as ties deepen. China continues to attempt to integrate the two economies, advance social and cultural ties, and strengthen its outreach to Taiwan. State Councilor Dai Bingguo of China has reiterated the point that the use of force is not off the table in handling the Taiwan situation, stating that "we will absolutely not allow Taiwan to be separated from China and will definitely make no promise to give up the use of force." Military options available to the PLA, according to the report, include maritime quarantines or blockades; use of limited force or coercive options; air and missile campaigns; amphibious invasions; or combinations of these options.

2013

The TOC of the MPPRC report notes that Chapter Two, "Understanding China's Strategy," is the only chapter with the term "strategy" in the heading. There are no sub-sections listed in the TOC.

Understanding China's Strategy. In this section, strategic windows of opportunity, CNP, strategic objectives, modernization, winning potential regional conflicts, maintaining growth, defending national sovereignty and territory, and Deng's "24-character strategy" were all listed in the document. Discussions also covered the growing level of the PLA's military engagement with foreign militaries, and the PLA's worry over its periphery and power projection capability. Decision-making indicators were also listed. There were special sections on "The Origin of the 'New Historic Missions" and "China's Energy Strategy," and there was an excellent description of each new member of the new Central Military Commission.

China's National Defense White Papers

China first published *White Papers* in 1998, and has continued to do so every two years. The papers were viewed as comprehensive in detail. This changed in 2012, when the report became more specialized. It was titled "The Diversified Employment of China's Armed Forces." This specialized paper was only half the length of prior reports. It contained seven "firsts," such as releasing the number of members of the army, air force, and navy; releasing the designations of all group armies; and releasing model numbers for all of the 2nd artillery units' weapons. Maritime rights and interests were other points of discussion. This was to be expected, based on the ongoing controversy over the Diaoyu Islands and South China Sea shipping lanes. The paper reflected the joint work of the Military Science Academy, the General Staff Headquarters, and the State Council Information Office. Opinions were centrally written by the Military Science Academy in the end. 630

There is, of course, little reason for the Chinese to devote pages of their report to an understanding of Chinese strategy. The PLA knows how it is developed and put to use. Thus there are no definitions or discussions of strategy's components. The term "strategy" may be mentioned four times in one report or fourteen times in another,

⁶³⁰ Li Jingtao, "Intense 'Arguments' During the Writing of the White Paper—Expert Exposes the Inside Story of the Release of the New Defense White Paper," *Huanqiu Renwu*, 26 April 2013, pp. 38-39.

depending on emphasis. It does not receive anywhere near the attention that it does in the US reports on the Chinese military.

What follows are summaries of China's *White Papers* from 2000-2012, where strategy is mentioned:

- 2000—there are three references to the strategy of active defense in the report. There is one reference to the strategy of "invigorating the armed forces by reliance on science and technology."⁶³¹
- 2002—there are two references in the document to implementing a military strategy of active defense; one reference to implementing a strategy of building a strong military through science and technology; and two references to meeting the requirements and needs of the country's national development strategy.
- 2004—there was one reference each to the military strategy of the new era, the military strategy of active defense, and the developmental strategy of military logistical equipment and technology. 633
- 2006—this report was more extensive than those prior. It discussed the security strategy of promoting development and security (focusing on defense's economic developmental strategy and on developing the western region of China); and it discussed a threestep development strategy for modernizing national defense (lay a foundation by 2010, make progress around 2020, and reach the goal of building an informationized force that can win informationized wars by the mid-21st century). The Central Military Commission was designated as the developer of the state's military strategy for the armed forces. The PLA is pursuing a strategy of strengthening itself,

^{631 &}quot;China's National Defense 2000," at http://igcc.ucsd.edu/assets/001/502353.pdf.

^{632 &}quot;China's National Defense 2002," at http://english.gov.cn/official/2005-07/28/content 17780.htm.

^{633 &}quot;China's National Defense 2004," Xinhua (in English), 27 December 2004.

implementing active defense, and declaring a self-defensive nuclear strategy. The Navy was said to be exploring the strategy and tactics of maritime people's war under modern conditions. Finally, there was a reference to implementing a strategy of transition and upgrading in the science and technology area. ⁶³⁴

- 2008—the report mentioned active defense, the threestep development strategy noted above, and China's self-defensive nuclear strategy (no first use) twice each. China must pursue the "opening up strategy of mutual benefit," and the strategy for national defense must be compatible with the strategy for national development. The Navy's offshore defense strategy, the border troop's strategy of safeguarding the people, and strategies for economic development, informationization as a goal, and reform were mentioned. 635
- 2010—the strategy of "attacking only after being attacked" was stressed. The military strategy of active defense was mentioned twice, the offshore defense strategy of the Navy once, and the strategy of strengthening the military by science and technology means once. 636
- 2012—in this first "special" report, China was said to need to broaden its national security and military strategies, while unswervingly implementing the military strategy of active defense. Also mentioned in the report was the offshore defense strategy of the Navy. 637

It is the word "strategic" that is mentioned most often in the Chinese *White Papers*. It may be used in conjunction with twenty or

http://www.fas.org/programs/ssp/nukes/2008DefenseWhitePaper_Jan 2009.pdf.

^{634 &}quot;China's National Defense 2006," Xinhua (in English), 29 December 2006.

^{635 &}quot;China's National Defense 2008,"

^{636 &}quot;China's National Defense 2010," *Xinhua* (in English), 31 March 2011.

⁶³⁷ "The Diversified Employment of China's Armed Forces," *Xinhua* (in English), 16 April 2013.

more terms. For example, the term strategic was followed by the following terms in the 2004 White Paper: studies, thinking, concept, status, guideline, reorganization, high tech research, dominance, resource, points, task, dialogue, consultation, stability, project, opportunity, capability, situation, mobility, counterstrikes, force, and focus. An extremely small set of quotes from the 2004 report (for demonstration purposes only) using the term strategic included the following: "A major strategic task of the Communist Party of China (CPC) in exercising state power is to secure a coordinated development of national defense and the economy, and to build modernized, regularized and revolutionary armed forces to keep the country safe."; "Firmly seizing and taking full advantage of the important strategic opportunities presented in the first two decades of this century, China sticks to keeping its development in pace with its security and makes great efforts to enhance its national strategic capabilities by using multiple security means to cope with both traditional and non-traditional security threats so as to seek a comprehensive national security in the political, economic, military and social areas."

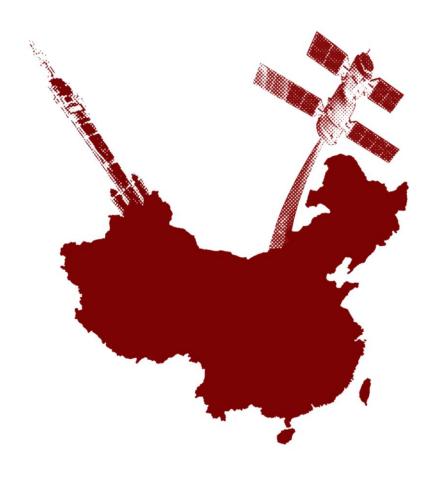
Conclusions

(see the "Up Front Analysis" at the beginning of the chapter for a detailed summary of findings)

This analysis indicates that in order to better understand Chinese strategy, only the US document provides an incisive look at the topic. This understanding has only grown and gotten better over the years. The sections titled understanding Chinese strategy and strategic capabilities are particularly useful to analysts. However, there are still minor gaps in the analytical process that could be filled.

The Chinese reports, on the other hand, offer little insights into the elements that comprise Chinese strategy. Those reports should be used for other purposes, such as investigating the use of the term "strategic" with other nouns.

PART FOUR: STRATEGY AND THE CONTEMPORARY ISSUES OF NEW CONCEPT WEAPONS, COMBAT POWER MODELS, AND THE CHINA DREAM



CHAPTER TEN: PSYCHOLOGICAL, NEW CONCEPT, AND CYBER WEAPONS AS ELEMENTS OF STRATEGY: PROGRAM 2110 AND OTHER ISSUES

Introduction

Employing China's objective reality-subjective initiative paradigm and its comprehensive national power assessment of other nations' strategic environments makes one quickly realize that, with regard to the psychological, new concept, and cyber weapons of others, China's environment is a scary one. Several nations have been investing heavily in scientific research for many years now, resulting, for example, in the US landing a man on the moon in 1969. It was only in 2003 that Yang Liwei became the first Chinese astronaut (Taikonaut in Chinese) to orbit the earth. Lacking in science and technology investments, China found itself in a significant research and development deficit for years, although in the more recent past (twenty years or so) it has exhibited great leaps in these areas. It has done so no only through home grown research but also through the purchase or theft of data from foreign nations, whose information has been used to reverse engineer many projects.

The military was behind this recent push for new technologies. In 2001 Major General Yao Youzhi, the Director of the Strategic Research Department of the Academy of Military Science, and Zhao Xide, a researcher in that department, noted that in order to guide the development of military strength in accordance with strategy, efforts must be focused on enhancing the quality, efficiency, and content of science and technology. In 2002 Major General Li Bingyan, one of China's best military strategists, noted that "modern science and technology must be combined with Eastern strategic thinking if there is to be any hope of winning the future." He advocated for the following:

⁶³⁸ Yao Youzhi and Zhao Xide, "The Generalization, Conservation, and Development of 'Strategy'," *China Military Science*, No. 4 2001, pp. 120-127.

⁶³⁹ Li Bingyan, "Emphasis on Strategy: Demonstrating the Culture of Eastern Military Studies," *China Military Science*, No. 5 2002, pp. 80-85.

We must now use the inheritance of our own people's excellent traditions as a basis, take the initiative to overcome the negative aspects of our national culture, break free of our self-imposed confines, draw on the West's spirit of exploration and continual pursuit of new measures, stand on the leading edge of the revolution in military affairs, cast our eye in the direction in which advanced combat power is developing, and create military strategic studies of the new era. This is the responsibility of the new generation of Chinese soldiers. 640

Unmanned combat systems, nanotechnology developments, micro-robotics, and other technologies and reconnaissance weapons using stealth, deception, interference, and orbit changes were developed and are playing an increasingly prominent role in the People's Liberation Army's (PLA) military operations. A number of key laboratories have been developed as well, in areas such as plasma applications, data analysis, robot assembly, neuroscience, mechanics, optoelectronics, and nano-biomedical research.

The Chinese leadership is encouraging scientific innovation in order to support the PLA and is broadcasting this focus worldwide. For example, the Chinese took out a full-page advertisement in the *Wall Street Journal* in November 2013 titled, "Building a Modern Legend for Innovation." The Haidian Science Park not only is China's "first technology zone and the heart of the country's first independent innovation pilot area," but also home to giant companies such as Lenovo and top search engine Baidu. The park has China's highest concentration of international high-tech companies, with more than 70 research and development operations from top 500 companies that include Microsoft, Oracle, and IBM. Reportedly there are 4,400 statelevel high-tech companies there as well. Revenue from the software and

⁶⁴⁰ Ibid.

⁶⁴¹ Interview with Chen Zhou, "Scientifically Judge the New Situation and Calmly Respond to New Challenges," *China Military Science*, No. 3 2012, pp. 45-52.

⁶⁴² Xu Xiao, "Building a Modern Legend for Innovation," *The Wall Street Journal*, 5 November 2013, p. A12.

information service industry alone was one-seventh of the country's total.⁶⁴³

This chapter will discuss strategic psychological, new concept, and cyber developments that will affect the PLA's future strategy and thus future warfare focus. It will include glimpses of the strategic environment and objective factors the Chinese leadership sees before it, primarily in the form of US technological advances that the PLA must learn to either catch up with or manipulate to its advantage.

Psychological Weapons

The book, *Informatized Weapons and Their Use*, a "Military 'Program 2110' Building Item," discussed modern weaponry. The table of contents demonstrated the wide swath of information to be covered, to include informatized ground, maritime and airborne combat platforms; precision guided weapons; electronic warfare, cyber warfare, and psychological warfare equipment and their application; single-soldier, support, aerospace, and new concept weapons and their application; and military information systems.

It may seem strange to a Westerner to see psychological issues in a section on future weapons, but to the Chinese this is an important issue, and they devote an entire section in *Informatized Weapons and Their Use* to this issue. Science and technology developments have played a major role in the development of new trends in psychological warfare (PsyWar). No longer are leaflets and loudspeakers the sole means of persuasion. The book notes that the invisible sword of such operations has been technologically enhanced and is now much sharper as a result.

The Chinese defined psychological warfare in the book as

Using information measures to launch tricks and offensives against the enemy's thinking concepts and system of understanding, with the main goal of making him lose his psychological defensive capabilities, utterly paralyzing him spiritually, psychologically, and

⁶⁴³ Ibid.

motivationally, achieving operational objectives as quickly as possible. 644

PsyWar today is an extension of traditional forms under informatized conditions. Technologies become the carriers of psychological information, and such attacks can have a greater effect on systems of understanding and belief. Unmanned aerial vehicles drop smart leaflets (audio-visual leaflets) and sound recorders/reproducers. Sides to a conflict will conduct psychological and propaganda warfare over the Internet, and virtual reality technology will be used to create images of enemy commanders or leaders issuing orders to stop fighting.

Virtual technologies may be used to fabricate virtual forces, aircraft groups, or virtual fleets. Virtual forces may come at friendly forces from the East when real forces are coming from the West. Information will be high volume and highly confusing, but it must remain prominent. PsyWar equipment under development includes microelectronic and photoelectronic systems. Soft and hard attacks will be combined, and these attacks will utilize cameras, computers, disks, audio and video tapes, satellites, television, and so on to carry out transmission. Individual psychological multichannel information equipment will be integrated and "polymerized," referring to "the optimal combination of the effects of all kinds of psychological warfare weapons, so that subsystems can share, interconnect, and intercommunicate."645

Researchers have found that one of the key ways to cause an opponent to forfeit his fighting capabilities is to destroy his visual functions. Thus, it appears that optical interference will be a main way to conduct 21st century PsyWar. Lasers can confuse and cause dizziness or blindness. China is intensifying its research in this area, according to *Informatized Weapons and Their Use*. Explosive energy or

⁶⁴⁶ Ibid., p. 198.

⁶⁴⁴ Song Huawen and Geng Yandong, Main Editors, *Informatized Weapons and Their Use*, National Defense Industry Press 2010, p. 184.

⁶⁴⁵ Ibid., p. 197.

illumination weapons can dazzle or damage photosensitive devices and irritate eyes or blind people.

Other visual weapons were also mentioned. Hallucination weapons are "equipment made up of computers capable of...analyzing a person's character based on computer wave signals intercepted and generating subliminal messages to influence a person's thinking." Holographic projection weapons use low-energy laser principles to create imaginary images. They could be reflected off of clouds or mists. Slogans or catchphrases could be utilized as well, designed to harass, intimidate, or undermine moral. 648

Sound technologies are related to the creation of inner voices or to feelings of being uncomfortable physiologically. Sound simulation equipment can be used to imitate personnel, weapons, and vehicles, issue false orders, and/or create false activities for deceptive purposes. Acoustic spotlight weapons can emit directional sounds that appear to be in the immediate vicinity but may be hundreds of meters away. A Noise bombs cause shock and upset central nervous systems or cause damage to internal organs and eardrums.

Humans generally hear in the 20Hz to 20 kHz range. Frequencies above 20 kHz are called ultrasonic waves and below 20Hz they are called subsonic waves. The latter frequencies can damage biological systems, causing them to lose functions and induce nausea, vomiting, and other uncomfortable symptoms. 651

Network psychological warfare weapons are used to generate confusion and panic among enemy forces or nations. Destroying C4ISR systems, altering or destroying databases, or paralyzing networks can cause chaos within a force that appears unable to properly command and control its personnel and deployments. Planting false information in media feeds, simulating images or the speech of an enemy's national

649 Ibid.

⁶⁴⁷ Ibid., p. 199.

⁶⁴⁸ Ibid.

⁶⁵⁰ Ibid., p. 200.

⁶⁵¹ Ibid.

decision maker, or using terrifying war scenes or explosive political news related to the war can weaken or destroy an enemy's will to resist. This can include the civilian population, of course, and public opinion can even become a decisive factor.

Microelectronic technologies are capable of causing battlefield shock and awe, in that they can gather intelligence unseen. These systems are smart weapons based on micrometer or nanometer technologies. They include miniature spy aircraft, pocket-sized remote-controlled aircraft, nano-satellites, mechanical insects, and computer worms. Chemical weapons also cause panic on the battlefield, whether as irritants to the eyes, nose, throat, and skin of personnel; as anesthetic weapons, a kind of tranquilizer, such as dimethyl sulfoxide sprayed over areas by aircraft; or special soaps that quickly solidify after coming into contact with air, which then entangle a person and cause him to lose the ability to fight. 653

Artificial meteorological environmental weapons were discussed. They can make weather unsuitable for the delivery of logistics, thereby making it more difficult to fight. In addition, inestimable psychological harm can be inflicted by kinetic energy, particle satellite, biological, genetic, and high-precision weaponry, damaging an enemy's thinking and his ability to act. 654

In Afghanistan the US used propaganda offensives, the enforcement of information blockades, and buyouts of people to foster a positive impression of US forces and provide anti-Taliban messages to the local populace. Broadcasting messages through the delivery of fixed-band radios worked well. Cyber propaganda deception (simulation, imitation), cyber shock and awe (demonstrations of strength, disparity in forces), and cyber attacks (planting false information, tampering with data, etc.) were also utilized. Electromagnetic waves carried deceptive or harassing information to influence the mind of the

⁶⁵² Ibid.

⁶⁵³ Ibid., p. 201.

⁶⁵⁴ Ibid., pp. 201-202.

⁶⁵⁵ Ibid., pp. 202-204.

⁶⁵⁶ Ibid., p. 205.

enemy and cause mistakes. The waves impeded battlefield information from reaching commanders through the jamming or destruction of information, thereby influencing a commander's psychology and swaying his confidence in his systems' ability to function and coordinate the input of information⁶⁵⁷ and thus adversely affecting his decision making capability.

New Concept Weapons

For many years the PLA has been closely studying the use of socalled new concept weapons (NCW), including genetic, laser, hypersonic, nanotechnology, and rail gun weapons. The Chinese have discussed their progress in developing these weapons at international conferences.

Informatized Weapons and Their Use describes the combat characteristics of NCW as being very stealthy. First, this is accomplished through speed (targets can be attacked in a split second, allowing no time for preventive steps). Second, due to the stealthy nature of NCW, adversaries cannot conduct effective reconnaissance against an opponent. Light waves, viruses, and other types of 21st century warfare have no observable forms and no noise, thus making it hard to even ascertain when an attack takes place (other than the visible destruction caused by the attack). These attacks can be made from long distances. Adversaries may be subjected to a passive beating as a result. 658

Another characteristic is the vastness of the combat domain. Attacks can be carried out from multiple directions and via different channels. Weapons can be used to connect (circuits), emit (wave beams), spread (pathogenic genes), release (chemical or biological agents), or drop (bombs) weaponry. A final characteristic is that combat efficacy is dramatically improved due to target precision, high attack frequency, and weaponry's vast range. 659

⁶⁵⁷ Ibid., p. 206.

⁶⁵⁸ Ibid., p. 311.

⁶⁵⁹ Ibid., p. 312.

Directed energy weapons include lasers (blinding, air defense, strategic), microwaves, and particle beams. The discussion of lasers in *Informatized Weapons and Their Use* only examined US weaponry, even though the PLA has written often on China's use of lasers in the open press. The authors were more forthcoming on microwaves and particle beam weaponry. Microwaves currently under development include ultrahigh energy transmitters, large high-gain antennas, and tracking, aiming, and control systems. Energy is transmitted into a narrow beam and fired at a target. Frequencies can be changed often, and the beam is only minimally affected by weather. Microwave weapons are able to generate more than 100 MW of power, while the power density of the electromagnetic pulse is 100W/m squared to 1MW/m squared. They can serve strategic or tactical purposes (see Appendix Three for a more extensive translation of the microwave discussion and the particle beam discussion that follows).

Particle beam weapons, according to the authors, have strong penetrating capabilities (greater than lasers), are available for quick responses (propagating at nearly the speed of light), are all weather, and have one shortcoming: their vulnerability to the influence of the Earth's magnetic field when the particles carry an electrical charge. ⁶⁶¹

Kinetic energy weapons include kinetic kill vehicles (KKV) and electromagnetic launch weaponry. KKV are lightweight, miniaturized, automated-seeking weapons that use non-explosive energy of high-speed flight for precision hits of incoming targets through direct collision with them. They are used to improve air defenses, conduct precision attacks, impose maritime blockades, and attain electromagnetic supremacy. Electromagnetic launch weapons are kinetic energy weapons that use electromagnetic launch technology to launch ultra-high speed bullets using electromagnetic power to destroy targets with kinetic energy. They are used for air defense, antimissile, anti-armor, and anti-ship operations on the future battlefield (see Appendix Three for more information on kinetic weapons).

⁶⁶⁰ Ibid., p. 318.

⁶⁶¹ Ibid., p. 322.

⁶⁶² Ibid., pp. 325-326.

Cyber Weapons

An important article in China Military Science in 2000 demonstrated the use of high-technology and cyber issues as they adapt to strategy and stratagems. Titled "Planning and Application of Strategies of Information Operations in High-Tech Local Wars," it offered several ways in which stratagems could be applied in the information age. 663

The authors defined information warfare (IW) stratagems as "schemes and methods devised and used by commanders and commanding bodies to seize and maintain information supremacy on the basis of using clever methods to prevail at a relatively small cost in information warfare."664 They stated that Orientals and Occidentals view the combination of stratagems and technology in different ways, because their military and social cultures, not to mention their economic prosperity, have evolved in different ways, resulting in different thought processes. The authors noted:

> Traditionally, Oriental people emphasize stratagems, and Occidental people emphasize technology...Occidental soldiers would seek technological means encountering a difficulty, while Oriental soldiers would seek to use stratagems to make up for technological changing technological deficiencies without the conditions. An Oriental soldier's traditional way of thinking is not conducive to technological development, but can still serve as an effective way of seeking survival in a situation of danger. 665

There is certainly a Western proclivity to look for technological fixes that has long been recognized and critiqued by analysts. A simple check on when the latest US article was written on IW stratagems would most

⁶⁶⁵ Ibid.

⁶⁶³ Niu Li, Li Jiangzhou, and Xu Dehui, "Planning and Application of Strategies of Information Operations in High-Tech Local War," China Military Science, No. 4 2000, pp. 115-122. 664 Ibid.

likely turn up empty. Western audiences have underappreciated the less recognized Oriental fix on strategies and perhaps their importance in general. A proper mix of the two is required, it would seem, to ensure that all sides of a situation are properly assessed. The PLA is developing a special agency just to handle the use of complex sets of stratagems in the information age.

Stratagems, when combined with high-technology-based weaponry, can help China make up for deficiencies in the information age. Stratagems are not developed in isolation but by combining human qualitative thinking with computer-assisted quantitative calculations. There are reports of Chinese efforts to use computers to generate military stratagems as a battle unfolds in field exercises. In such scenarios the operations department of a field unit would collect information from sensors, satellites, and other reconnaissance assets and enter the data into a computer. The computer would generate stratagems from this input for a Chinese commander's consideration. That is, current battlefield information is compared with established models stored in computers, and from this stratagems are generated. These stratagems are ways to manipulate the situation to PLA advantage. US operations personnel, on the other hand, generate courses of action for their commander's consideration. This is usually done by a combination of map and terrain analysis and knowledge of enemy locations.

Chapter Seven of *Informatized Weapons and Their Use* focused on cyber warfare equipment and its use. The editors noted that computer network space was transcending traditional concepts of geographic space. Future wars will thus develop into a new kind of computer network warfare (CNW) where computer systems and networks are the main objects of attack. Several interesting definitions are provided. Computer network space is defined as "all the military and civilian computer information networks of both sides, and involves areas such as politics, economics, culture, science and technology, diplomacy, and military affairs." A network confrontation refers to the following:

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⁶⁶⁶ Ibid., p. 176.

Using various possible methods and measures to break through the security and protection system of the enemy's network systems and conducting reconnaissance, invading and harassing, conducting deception, or damaging its military network systems or related civil network systems, information systems, etc., reducing or eliminating its information processing capabilities, the functioning of its networks and communications, and the operational capabilities of its weapons. 667

The concept mainly consists of taking advantage of, controlling, and destroying the enemy's computer network systems, while keeping one's own computer network system free from these issues. "Taking advantage of" refers to the employment of measures to maximize acquiring intelligence information in networks that a side needs; "controlling" refers to causing an enemy's networks to operate according to one's own intentions; and "destroying" refers to integrating the use of software and hardware measures of destruction in order to make it impossible for an enemy's networks to work properly or at all. 668

CNW is a main form of information operations, the goal of which is to control networks and seize supremacy. It is defined as "all kinds of offensive and defensive information operations carried out in all of cyberspace, with computer networks as the battlefield, with computers as the weapons, using advanced information technology as the means." Operational goal is to maintain cyber information supremacy. Operational actions associated with this concept include network reconnaissance, offense, defense and support, as well as electronic and firepower warfare conducted around offense and defense. Targets can be military or civilian computer network systems, and attack levels include networks, physical objects, or command decision making levels. Actions are usually applied in an integrated fashion.

⁶⁶⁷ Ibid.

⁶⁶⁸ Ibid., p. 177.

⁶⁶⁹ Ibid., p. 178.

⁶⁷⁰ Ibid., p. 176.

⁶⁷¹ Ibid., p. 177.

CNW is an advanced stage of IW's development. Pre-deployed CNW weapons such as latent computer viruses or trap doors can paralyze an economy, cause social upheaval, make operational command impossible, or paralyze war machines, thereby completing strategic goals that would have required a mighty force in the past. CNW is an important form of operations in IW, as networks are becoming important strategic resources. Some believe that the destructive power of computers will be greater than that of nuclear weapons. 672

CNW brings new meaning to People's War. White-collar workers will assist in CNW, integrating military-civilian actions. Cyber or network warriors may be among the future mercenaries. CNW will assist future war victories and will add important soft-kill measures, such as destroying a system's proper functioning, altering information, weakening operational efficiency, and destroying an ability to collect, process, transmit, control and use information. Scariest of all would be a virus that gets into a strategic nuclear weapons system, where "the result would be unimaginable." 673

Types of cyber war are classified as strategic and battlefield. Strategic cyber war could be conducted in peacetime or wartime. Peacetime strategic cyber warfare occurs before warfare involving firepower destruction. Wartime cyber warfare is self-explanatory, and can be on any scale. Battlefield cyber warfare falls into a narrow or broad category. In the narrow sense it refers to combat actions that attack, destroy, or interfere with an enemy's networks. In a broad sense it is similar to network-centric warfare. Unfortunately the discussion in the book did not differentiate between attacking networks and network-centric capabilities.

Conclusions

High-tech developments will greatly affect discussions within the PLA regarding strategic and future war issues. Processing speed and

⁶⁷² Ibid., pp. 179-180.

⁶⁷³ Ibid., p. 181.

⁶⁷⁴ Ibid., pp. 177-178.

situational awareness, two primary ingredients upon which success depends, are heavily influenced and must be continuously monitored.

primary method to strengthen the PLA is through improvements in the science and technology sector, which serves as the main developers of combat power. Not only does science and technology lead to improvements in both offensive and defensive weaponry, they also lead to domestic social and economic improvements. Scientific and technological developments for the PLA improve the country's ability to conduct strategic, campaign, and battle activities. Leadership methods, combat organizations, innovative thinking, and new ways to employ forces follow from such developments. Improvements also lessen the focus on quantities of equipment, substituting quality items in their science, bioengineering, aerospace place. Information and nanotechnology developments, and other sciences are required to modernize the force.

China continues its examination of airborne laser weaponry, genetic weapons, and hypervelocity electromagnetic guns according to their media releases. For example, Chinese President Xi Jinping, in remarks at an inspection at the National University of Defense Technology (NUDT) in Changsha, praised the University's innovations and scientific developments and urged the University's technology personnel to continue their hard work and to strive for more achievements. In June the NUDT announced that it had again built the world's fastest supercomputer, the Tianhe-2, capable of performing 33.86 quadrillion operations per second, thereby surpassing the U.S. Titan supercomputer.

These homegrown developments are necessary for China to keep pace with its science and technology environment. Objective reality, that is, the strategic environment in which China finds itself, is moving forward quickly and it will require the focused attention of the PLA to keep pace with international developments. However, the nation seems

⁶⁷⁵ Xinhua (in English), 6 November 2013.

to be finding its scientific and technological footing, as the recent success of landing a rover on the moon indicates.

CHAPTER ELEVEN: CHINA'S COMBAT POWER GENERATION MODEL: A MILITARY SUBDIVISION OF CNP?

Introduction

Chinese writers acknowledge that information-age weaponry has caused the People's Liberation Army (PLA) to reevaluate its combat power generation model (CPGM). In the words of new President Xi Jinping, this model must be able to fight and win battles, which requires training under informatized conditions. Only then can China's sovereignty and developmental interests be secured. Information-age weaponry allows modern combat power to exceed the value of its independent elements, making the whole greater than the sum of its parts. Sensors, data links, and platforms of all kinds result in an integrated and real-time information and operational system that is interconnected. As one writer noted, it is "the objective inevitability in the information age that a new kind of combat power will supersede the old combat power..."

China believes a revolution in military affairs (RMA) has occurred, creating a variety of new warfare alignments and functions such as the system-of-systems (SoS) confrontation, the use of integrated network-electronic warfare, and the development of precision weaponry and reconnaissance equipment. In short, informatized warfare is changing the methods for generating combat power away from the old mechanized force structure. Information technology has enabled the integration or synthesis of various force elements and functions. This is changing the objective conditions under which wars will be fought.

This chapter discusses the transformation of China's CPGM and its impact on the PLA's training and operational theories. An examination of the CPGM concept enables a determination of the concepts direction and emphasis. It is not known if the CPGM is a fixed index which the PLA can monitor and measure the progress of, as they

⁶⁷⁶ Zheng Qin, "Accurately Determine the Breakthrough Points in Quickening the Transformation of the CPGM, Actively Innovate the Training Model under Informatized Conditions," *Jiefangjun Bao* Online, 22 March 2012, p. 10.

do for comprehensive national power (CNP). However, examining the CPGM concept can help analysts better understand what power generation capabilities, both quantitatively and qualitatively, exist in the PLA at the present time. A CPGM explanation may even uncover how the PLA plans to transform the objective conditions affecting the modern battlefield into a winning situation.

Background

For nearly three decades now, China has analytically expressed its relative place in global affairs through an index known as CNP. This index attempts to measure national power from all angles, such as military, economic, political, science and technology, and so on. In the view of Michael Pillsbury, a top US expert on China and one of the few analysts to thoroughly examine the topic, CNP calculations help identify the following issues about China in regard to other nation-states: the nation's status and hierarchy in world politics; the power of potential rivals and potential partners; and which nation will best exploit the RMA and have the best chance to win a future war. ⁶⁷⁷ In 2013 China's well known military spokesman Major General Luo Yuan stated that the PLA is "making the level of combat capability the paramount evaluation criterion for military management."

While there is no mention of the CPGM in the description of CNP, it is worth considering whether CPGM may be one of CNP's subsystems. The PLA uses the model to examine the PLA's progress in the transformation of its military capability and efficiency, and it could be used as well to measure its combat power generation capability against that of other nations. A look at the important PLA articles describing CPGM follows.

The CPGM Discussion

In 2009 Chinese authors attached an interesting label to the new model of mobile combat operations, the "lightning + cocoon model of maneuver warfare." It was noted that speed and coordination are the two

⁶⁷⁷ Michael Pillsbury, *China Debates the Future Security Environment*, National Defense University Press, Washington DC, 2000, p. 205.

⁶⁷⁸ Ke Chung, no title provided, Wen Wei Po Online, 15 January 2013.

forms needed to exploit the time and space mediums of combat operational power. Various kinds of combat effectiveness are linked by information networks, where "countless silk threads are made strong by the weave." While speed and power generated by information produce the lightening, information's coordinating ability winds a tight cocoon that leaves the enemy no way out.⁶⁷⁹ The ability to merge speed and coordination can put an opponent in a situation of perpetual inadequate preparation and enhance his defeat.

The PLA held a seminar on accelerating CPGM in 2011. Some 600 papers were submitted to seminar leaders. Discussions were conducted about the rules, methods, evaluation indicators, content, key issues, and effective countermeasures of accelerating the transformation of the CPGM under information-based conditions. A method, for example, is to enhance military-civilian integration. A key element of integration is the use of the science and technology expertise of civilians and the formation of a joint force between civilians and the military, thereby improving the overall or comprehensive nature of combat power. Transforming the mode of combat power generation involves the following:

- Changing all of the key elements comprising combat capabilities
- Innovating their organizational structure and operating mechanisms
- Changing the ways, methods, and patterns of generating and improving the combat power of the armed forces.⁶⁸²

⁶⁷⁹ Gao Shen and Li Xiaofeng, "'Lightning + Cocoon'—a New Model of Mobile Combat Operations," *Jiefangjun Bao Online*, 13 August 2009.

⁶⁸⁰ Li Xucheng and Chu Zhenjiang, "PLA Seminar on Accelerating Transformation of Combat Power Generation Model Held," *Jiefangjun Bao* Online (in English), 11 July 2011.

⁶⁸¹ Liu Lei, "Military-Civilian Integration: Engine for Accelerating the Transformation of the CPGM," *Jiefangjun Bao* Online, 18 August 2011, p. 10.

⁶⁸² Xu Fenlin, "Accelerating and Transforming the CPGM from the Heights of Strategy and the Overall Situation," *Qiushi* Online, 16 November 2011, No. 22.

The goal of transforming the CPGM is to employ the SoS approach not only to deter war but also to win it. Grasping and utilizing the science and technology aspect of information technologies encourages the full use of the subjective initiative of officers and soldiers, and the study and implementation of strategic thinking during a period of strategic opportunities. 683 Fang Fenghui, Commander of the Beijing Military Region in 2011, stated that the core aspect of the transformation is "to rely on scientific and technological advances to improve the essential qualities of officers and men, create innovative formats of combat, and achieve the optimum integration of man and armament."684 The overall goal is to boost the PLA's competence to win limited war under informatized conditions. Under informatization. informatized personnel, informatized weapons and equipment, and informatized operational modalities are the areas that generate combat power to develop a man-machine synergy. This includes strengthening training in information offense and defense as well as means of command. New demands include elevating a commanding officer's knowledge of theories and informatization, requiring proficiency in information systems and weapons, requiring skills for organizing operations, and requiring the ability to lead the informatization process in their units 685

In early 2012 Li Bingyan, one of the PLA's best strategists, reflected on ten issues that would help transform the PLA's CPGM. These ten points, listed below, are activities in which the PLA should engage, in Li's opinion, to assure unity in regard to the country's strategic guiding ideology:

- Design and build its forces with scientific thinking in regard to specific missions
- Build its fighting capacity with regard to the new security situation worldwide

⁶⁸³ Ibid.

⁶⁸⁴ Zhu Sixiong interview with Fang Fenghui, "Accelerating the Transformation of the Pattern of Combat Power Generation," *Renmin Ribao* Online, 1 April, 2011, p. 19. ⁶⁸⁵ Ibid.

- Refrain from "mechanically" using foreign military practices
- Integrate intelligence, communications, command, control, and operations management systems and new-type combat groups to conform with informationage requirements
- Differentiate informatization of the force from informatized force building
- Study ways of integrating global practices and Chinese practices in regard to informatized force building
- Design and build forces in light of international security situation "certainties," while watching over "uncertainties"
- Study differences between itself and foreign force in order to develop its own "asymmetrical superiority"
- Strategically design and plan its force through integrating scientific approaches with rich imagination [the author most likely means stratagem development here when he mentions imagination; imagination is subjective thought applied to modern conditions]
- Test, assess, and optimize its own strategic development programs⁶⁸⁶

Some have identified three key elements for acquiring the new CPGM. One article discussed the "discoverer's logic" or "power of discovery" as of great importance as to how combat power can be generated. In particular, the article referred to the US discovery of Bin Laden's whereabouts. It took ten years to find him, and forty minutes to dispose of him. Information has now become the core of an armed force's combat power and will generate a huge influence on shaping it. The flow volume and speed of information is contributing to the growth

⁶⁸⁶ Li Bingyan, "Assure High Degree of Unity in Terms of Strategic Guidance Ideology—Reflections on Security Consensus on 10 Issues Concerning Ground Force Transformation," *Zhongguo Guofang Bao* Online, 9 January 2012.

of combat power. Information is now an element of military structural organization and self-organization. 687

Information plays a role in operational guidance, as it helps decision-makers lock on targets as actions unfold. It functions like a magnet, helping people unify their thinking and act in unison, and plays an economizing role, enhancing command efficiency. In summary, information is the pivot point of thought, helping to establish systems thinking, relationships among vectors of thought, and non-linear thinking forms. One must get connected to the network and advance its technology and communications structure so that individuals are turned into nodes of the network. Distributed collaboration is the core of the new organizational form, making "the new CPGM network-centric." 688

One report from the PLA's Nanjing Military Area Command indicated that a new joint-type duty room has been established to improve combat readiness. It comprises four centers: mapping, meteorology, operational data, and information network. The center's video system collects real-time material from 28 areas, to include the state of troop units, reconnaissance intelligence, operational data, and the electromagnetic spectrum, collecting, analyzing, processing, distributing information for further application. The operations, intelligence, communication, administrative and confidential work, political department, logistics department, and the armaments department now all get together in the joint duty room.⁶⁸⁹

China hopes to transform its CPGM through theory and training. Theory is the precursor of action, the Chinese note. Advanced operational theory is required to win future informatized warfare. This includes the innovation of battle methods and their countermeasures. Military academics have studied the characteristics and laws of local warfare under informatized conditions, as well as the operational, command, training, and support types/forms in order to enhance the

⁶⁸⁸ Ibid.

⁶⁸⁷ Zhu Xiaoning, "Tentative Analysis of the 'Three Elements' in the Generation of New Combat Power," *Jiefangjun Bao* Online, 19 January 2012, p. 10.

⁶⁸⁹ "Group Army Explores New Model of Informationized Combat Readiness Duty," *Jiefangjun Bao* Online (in English), 28 February 2012.

transformation of combat power. This research has led the General Staff to join with the National Defense University to work on the generation of new strategic and campaign teaching materials. At the level of strategy, teaching materials are designed to systematically expound on the strategic notions of active defense and comprehensively look at strategic planning, command, support, and war mobilization. The development of people's war strategy and the implementation of international laws and the laws of war are major components of the military's strategic guidance. The leader (unnamed) of a PLA General Staff Department noted the following:

The work of compiling new theory teaching materials must embody the feature of the times, be based on the actual conditions, be aimed at future development and requirements, and make clear the issue of what kind of wars to fight and how to fight under informatized conditions; must courageously make innovations and breakthroughs, absorb the quintessence of our military's operational theory, take the useful results achieved by foreign militaries as reference, focus efforts on and achieve results in studying the major issues in the operational theory;...

Even Chairman Hu Jintao stated that to effectively transform the CPGM China must rely on "scientific and technology progress, especially on the progress of new and high technologies with information technology as the main hallmark." Confrontation on the digital battlefield has been simulated in China under various types of conditions and this has verified the model. This means

A new generation of information transmission networks with fiber optic communications as the main means and

⁶⁹¹ Ibid.

⁶⁹⁰ Li Weiya and Hu Junhua, "Seize the Commanding Height of Informatized Warfare," *Jiefangjun Bao* Online, 5 April 2012, p. 1.

⁶⁹² Xu Zhuangzhi, "Combat Power Leaps Through Transformation—Part 1 of Roundups on Achievements in National Defense and Armed Forces Building," *Xinhua Domestic Service*, 12 June 2012.

with satellite and shortwave communications as the auxiliary means was successively set up. New breakthroughs were made in the building of information systems for reconnaissance and intelligence, for command and control, and for the battlefield environment. Information systems specializing in logistics and armament support were extensively put into use across the board. 693

A *Jiefangjun Bao* article in July 2012 stated that military culture plays a role in developing CPGM. Its biggest function and charm is the ability to effectively nourish and raise combat power. The building of military information culture is of increasing strategic significance to the effective generation, maintenance, and release of new-quality combat power, of which information is the core. ⁶⁹⁴

Finally, *Xinhua's* domestic news service noted that fulfilling the strong army dream (the "dream" issue is an established goal of Xi Jinping's presidency) requires the establishment of a combat power standard as the fundamental standard for force building, which includes that missions be expanded; that the evolution of war patterns, operational forms, and the front end of the revolution in military affairs, dealing with the most complicated situations first, be studied; and that the force's deterrence capabilities under informatized conditions continuously are enhanced.⁶⁹⁵ Xu Qiliang, Vice Chairman of the Central Military Commission, noted that mastering the law of winning in war and the law of combat power building should be the future focus.

⁶⁹³ Ibid.

⁶⁹⁴ Li Aiping, "Nourish New-Quality Combat Power with Military Information Culture," *Jiefangjun Bao* Online, 19 July 2012, p. 10.

⁶⁹⁵ Wang Hongshen and Li Xuanliang, "Fulfill the 'Strong Army Dream' with Concrete Action of Being Able to Fight Victorious Battles," *Xinhua Domestic Service*, 19 March 2013.

⁶⁹⁶ No author listed, "Xu Qiliang Inspects Beijing Military Region, Emphasizing Unifying Thinking, Gathering Strength,...," *Xinhua Domestic Service*, 12 April 2013.

China Military Science (CMS)

CMS has carried several articles on CPGMs over the past year. It is uncertain if these more extensive treatments of the topic are discussions of where and how to proceed or if they are discussions of policy. The first article appeared in 2011 and discussed the need to speed up the transformation process of the force's CPGM. The author noted that people's interaction with equipment/weapons has always been a method to improve CPGMs. Today it is systems that integrate forces and units. According to China's opinion, material and energy are transformed into combat power under the control of information, with a reliance on science and technology imperatives and close military-civilian integration being key requirements. The support functions of military systems integrate capabilities and generate operational capabilities with multiplying effects. Precision delivery, strike, and support are required, along with high-efficiency command and control. 697

Science and technology have hastened the appearance of new forms of warfare. The PLA's focus centered, as a result, on speeding up the transformation of CPGMs according to the demands of the times (such as war under informatized conditions, an objective law independent of people's will) and as a way of thinking and measuring efficiency. As war forms have undergone change, information has become a key factor in winning war, system countermeasures have become a new basic combat style, and outer space has become a new commanding height on the battlefield. As the author noted regarding speeding up the CPGM transformation process under informatized conditions

...the precondition is innovative development and widespread use of new and high technologies which are mainly symbolized by information technology, the material foundation is informatized weapons and equipment, the mainstay elements are commanders and soldiers with informatized knowledge and skills, the basic

 ⁶⁹⁷ Liu Yuejun, "Clearly Understand Patterns, Grasp Direction, and Speed Up Transformation of Troops' CPGMs," *China Military Science*, No. 3 2011, pp. 87-91.
 ⁶⁹⁸ Ibid.

route is transformation through military training, the important guarantee is a scientifically sound, highly efficient organizational structure, and the goal to be realized is to raise information system-based system-of-systems operational capability. 699

In 2012 six articles appeared on comber power generation in *CMS*. One of the first articles defined the topic of CPGM in the following way:

CPGM is a military state in which a military system that is composed of man, weapons and equipment, and other combat resources generates certain combat functions. The structure, actions, and state of the military system are in a dynamic stability within certain time and spatial scope, therefore, the combat power generation model can be described using a military system's features, such as elements, structures, environment, and functions. ⁷⁰⁰

The military system's features were then further explained. System elements were defined as man, weapons and equipment, and other combat resources. System structures were defined as the quality, quantity, time, and spatial structures among the system elements, and the connection among information, materials, and energy. A system defined as the natural environment, environment was environment, operational objects, and so on, that exist outside of the military system under study and congregate with things associated with them. A military system's management level, information level, and science and technology level have become main factors for generating combat power. CPGM combines intelligence with human intelligence plus information systems and information energy plus various service and arms combinations. A man's intelligence replaces skills in an information-dominated environment, the latter a critical node in the

⁶⁹⁹ Ibid.

⁷⁰⁰ Guo Ruobing, Zhang Xi, and Li Jingwei, "Study on Basic Issues of Accelerating the Transformation of the Combat Power Generation Model," *China Military Science*, No. 1 2012, pp. 36-43.

generation of combat power. Since man's creative actions are key, subjective and objective efforts must be made to create the necessary condition to turn possibility into reality. 701

Another key article discussed the PLA's combat power mode from the vantage point of former President Hu Jintao's major strategic thinking. Hu's ideas were used to push the scientific development of the armed forces, accelerate the informatization process, and improve the SoS capability of the armed forces. 702 The result would be a transformed CPGM. The latter is viewed as a complex system engineering project that involves various levels and various fields in national defense and armed forces building.

Hu's thoughts on the CPGM reflects the evolution of warfare's mode of development, where informatized weapons and equipment are key material factors for combat power; information capability becomes the engine and multiplier for combat power generation; and the CPGM transforms from a mechanized platform model to one dominated by information capabilities. The CPGM determines the level and strength of combat power and the breadth and depth of its scientific development. Initial measurements of the PLA's CPGM's efficiency indicate it is not commensurate with the requirement of winning local wars under informatized conditions. Much work remains to be done to transform the PLA from a quantity—to a quality—driven force and from a manpowerintensive force to one that is science and technology intensive, especially where combat power is no longer linear but based on a SoS's capability. The PLA's indigenous innovation of weapons and equipment based on information technologies is vital to success. New-type operational forces include strategic early-warning, air defense anti-missile information attack and defense priorities, strategic projection, and digitized units. All are required elements of the transformation process.

703 Ibid.

⁷⁰¹ Ibid.

⁷⁰² Shi Zhongwu, "Scientific Guidance for Promoting the Transformation of the Armed Forces' Combat Power Mode—a Study on Hu Jintao's Important Exposition on Accelerating the Transformation of the Combat Power Generation Model," China Military Science, No. 1 2012, pp. 3-13.

Key training advances are necessary in order to properly prepare troops in peacetime. This includes the innovative use of information, multi-media, network, simulation, and virtual reality technologies to enhance training. Lifelike physical battlefields, multi-dimensional reconnaissance, complex electromagnetic battlefield environments, political warfare psychology, network attack and defense, and other informatized battlefield environments must be emphasized. Simulated and network-based training under informatized conditions are required. Even though currently lacking in the transformation of its armed forces to an informatized military, partial CPGM catch-up must be undertaken, since it can eventually lead to comprehensive catch-up.

Problems exist, of course. The joint operations command system is not yet complete, policies and regulations are still not properly matched, and the organizational structure is not yet optimized. Other issues to be prevented in the future are rigid and disconnected systems, equal investments in all subjects with no priorities, and changes to separate planning practices. ⁷⁰⁵ *Jiefangjun Bao Online* in 2013 listed three problem areas associated with the CPGM: the five excesses (too many messages, meetings, work groups, inspections, and assessments), a lack of criticism and self-criticism, and the inability to overcome passive guarantees (lowering training difficulty and degree of danger) for safety's sake. ⁷⁰⁶ Each plays a role in lowering the ability of the CPGM to meet its highest standard.

Another *CMS* article highlighted results of a combat power model transformation symposium. The article stressed that the transformation of combat power can be attained in three ways. First, informatization serves as "the multiplier of armed forces combat power improvement and forms a new CPGM with the system-of-systems

⁷⁰⁴ Ibid.

⁷⁰⁵ Ibid.

⁷⁰⁶ See (no author for each entry) "Do Not Let 'Additions' Produce 'Negative Energy'...," *Jiefangjun Bao Online*, 5 August 20213, p. 1; "There is No Lack of Red Faces but Lack of Black Faces on Exercise Grounds...," *Jiefangjun Bao Online*, 6 August 2013, p. 1; and "How Far is the Distance between Two 'Zeroes'...," *Jiefangjun Bao Online*, 7 August 2013, p. 1.

operations capability as the goal."707 Second, combat power is assumed to have two aspects, acquirement and development. The former refers to improvements in the people-machine integration effort, and the latter refers to adding new qualities to combat power. Third, power is transformed through "one system of systems, two forces and four drives" (two forces refers to science and technology progress and the force behind theoretical innovations. Four drives refer to the use of construction, training, management, and utilization to improve overall integration). Transforming power generation through the use of information technology means to adjust input intensity among the construction of systems, culture, and technology. Transforming the CPGM is one of Hu Jintao's major strategic thinking proposals. Combat power generation modes are changing ways of thinking and behavior in the PLA and developing new strategic opportunities. In short, "the generation of combat power is a process of continuously seeking information superiority.",708

A qualitative leap in capabilities will occur when there are breakthroughs in structure and methods of application of combat power models. Further, only through quantitative changes can qualitative leaps be accomplished. The end result of combat power construction will be to consolidate the Party's long-term ruling status, defend national strategic interests, support the construction of a well-off society, and safeguard world peace. A top priority that symposium members stressed was the transformation of cognitive style, through enhanced research on military theories. ⁷⁰⁹

To accelerate the CPGM's transformation, the symposium recommended two views regarding the steps required. The first view recommends two steps: early-phase exploration via pilot programs and then gradual popularization and utilization. The second view recommends five steps: the formulation of a strategic vision, the formulation of a science and technology strategy for weapons, the

⁷⁰⁷ Xu Jianjun, Fu Qiang, and Xia Chengxiao, "A Summary of the Seminar on Speeding Up Transforming the Mode of Generating Warfighting Capabilities," *China Military Science*, No. 1 2012, pp. 146-152.

⁷⁰⁸ Ibid.

⁷⁰⁹ Ibid.

formation of operational simulation labs, the utilization of war games to study security environments, and the building of pilot troops for testing new technology. PLA practitioners also need to balance the relationships between the guidance of theoretical innovations and the advancing force of science and technology progress; between platform centered elements of integration to a SoS-centered structure; and between the explicit hardware construction of quantity and size versus the implicit nature of soft power and quality.⁷¹⁰

Conclusions

Is CPGM a subsystem of CNP that helps analysts examine the ability of military power to improve China's CNP index? The articles perused do not demonstrate that is the case explicitly, but they do imply that the elements of the CPGM (science and technology, etc.) are some of CNP's major components. One article came close to offering that type of conclusion. Author Shi Zhongwu indicated the following:

The acceleration of the transformation of the combat power generation model is a complex system engineering process that has a bearing on the overall situation of national defense and armed forces building; and it involves a wide range of aspects, is highly complex, and faces new issues.⁷¹¹

Three issues stand out. The first issue is the increased importance of material and energy, since they transform combat power due to their improved capabilities as a result of the use of information instead of mechanical means. Informatized personnel, informatized weapons and equipment, and operational modalities under informatized conditions are the areas that generate combat power to develop a man-machine synergy. A commanding officer's knowledge of theories and informatization is now required as part of the CPGM upgrade. The flow and speed of information remind one of CNP Chinese expert Huang Shuofeng's notion that some type of motion equation is needed. The requirement to integrate vectors of thought makes the CPGM reliant on network-centric

⁷¹⁰ Ibid.

⁷¹¹ Shi Zhongwu.

capabilities as well. Military-civilian integration is a key to generating operational capabilities with multiplying effects. The building of military information culture is of increasing strategic significance to the effective generation, maintenance, and release of new-quality combat power, since information is now the core element of twenty-first century transformations.

Fang Fenghui highlighted a second issue. He noted that the transformation's core aspect is reliance on scientific and technological advances to make qualitative improvements of men and equipment, while achieving their optimum integration and creating innovative forms of combat. A new generation of information transmission networks with fiber optic communications as the main means and with satellite and shortwave communications as the auxiliary means has been established. New breakthroughs were made in the building of information systems for reconnaissance and intelligence, command and control, and the battlefield environment.

A third issue is the study of the global situational context for the identification of "certainties," the imaginative development of asymmetrical superiority, and the prior testing and assessment of these theories and equipment. From imagination comes the "discoverer's logic" or "power of discovery." Innovation is a key to promoting CNP, such that a country's strategic operational wisdom can be converted into a multiplier of CNP.

Study of the global context as a CPGM element further requires, from the Chinese perspective, a comprehensive look at strategic planning, command, support, and war mobilization. The development of people's war strategy and the implementation of international laws and the laws of war are major components of the military's strategic guidance. Rules, methods, evaluation indicators, content, key issues, and any effective enemy countermeasures that might hinder the acceleration of the transformation of the CPGM under information-based conditions are studied. Finally, cultural traditions that boost the morale of the people and the armed forces become an important indicator of China's CNP, as does civil-military integration of information age capabilities.

Today, along with geopolitics and space, the military's role in affecting CNP is growing and is a way for countries to settle relationships in a different manner than before, such as through the use of soft and hard power in a way that induces information deterrence. Military power becomes the backdrop against which diplomatic, science and technology, economic, and political warfare is conducted, while these same elements of CNP (especially economic elements), in turn, determine the potential of developing a stable and reliable national defense.

In conclusion, the generation of combat power is a process of continuously seeking information control or superiority. A qualitative leap in capabilities occurs when there are breakthroughs in the structure and methods of new operational forces (such as integrated network-electronic, psychological, special operations, and joint forces) that increase the value of the combat power models. The CPGM, based on the criteria presented, appears certain to be an element of the military aspect of China's CNP calculations. Whether it is a major system or just a sub system is not yet clear.

CHAPTER TWELVE: THE MILITARY'S "CHINA DREAM" STRATEGY: A RETURN TO MAO?

Introduction

"World Dream," "China Dream," and the "Dream of a Strong Army" are three intermixed pledges that President Xi Jinping (and journalists writing about his speeches) has made to the Chinese public. The use of a dream motto has put a patriotic flavor on thoughts about Chinese history and past glory, rekindles the concept of China as a powerful nation, and helps ensure stability and the maintenance of the population's loyalty to the leadership of the Communist Party of China (CPC).

The World Dream is designed to ensure the stability of China's external environment. Xi's first trips abroad were to Russia and to the conference of the BRICS (an organization populated by Brazil, Russia, India, China, and South Africa), nations either surrounding China or vital to its resource existence. Some analysts feel the World Dream's goal is to develop a new type of "inter-power relations." A secure external World Dream environment allows China to conduct its more internally oriented "China Dream," which is focused on the economic and military modernization of the nation. Fortunately for Xi, the stable strategic environment abroad has enabled a strategic opportunity.

The dream pledge serves as a rallying point for the population, which Hu Jintao's harmonious society pledge was unable to achieve from 2002-2012. As one author noted about Hu's rule on Hong Kong's most widely read English website, the *South China Morning Post Online*:

In the past decade, growth in gross domestic product soared, but most indices of social justice, governance performance, and public welfare deteriorated. Macroeconomic imbalances worsened as economic

⁷¹² No author provided," Xi's Foreign Debut Illuminates China's 'World Dream," *Xinhua* (English edition). 22 March 2013.

growth became excessively dependent on investment and exports. Inequality worsened. Official corruption escalated. Social mobility declined. Environmental degradation reached a crisis point.⁷¹³

Xi expects to be able to turn this situation around, and he has employed the capabilities of China's propaganda machine to help enable the cause, if the number of journalists writing about the dream concept is any indicator. Press releases and discussion forums have been filled with commentary on the dream concept. Reform will take courage, most journalists note. Sample slogans from the online version of the *People's Daily* include the following:

- Prepare for the worst and hope for the best.
- Ten thousand years are too long, seize the day, seize the hour.
- Make the whole and the part complement each other, combine treatment of the root-cause with treatment of symptoms and make progressive advances and breakthroughs complement each other.
- Cross the river by feeling the stones.
- Strengthen top level design.
- Attach importance to the systematic, holistic, and coordinated nature of reform. 714

Economic growth, a dream imperative, is formulated around the realization of the "two centenary" goals. The first economic goal is to catch up with the US gross domestic product (GDP) by 2020, when the 100th anniversary of the CPC will be celebrated. The second goal is to surpass the U.S. by 2050, when the 100th anniversary of the founding of the People's Republic of China will be celebrated.

Ribao Online. 22 March 2013, p. 5.

⁷¹³ Minxin Pei, "Xi will be pushed to make good on his China Dream," Hong Kong *South China Morning Post Online*, English edition, 19 April 2013.
⁷¹⁴ No author listed, "Use Reform to Make the China Dream Come True,.." *Renmin*

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The other, and equally or perhaps even more important, imperative of the dream is military rejuvenation. The nation needs a strong military if it is to achieve the goals set out for it by Xi. As one writer noted, "Given the revolutionary changes in the military field, China has no choice but to transform the PLA from a labor-intensive force into a technology-intensive fighting machine, from being an armed force of quantity to a defense unit of quality, for which it has to depend on scientific and technological advancement."

For those in the Armed Forces, the mention of a China Dream was reinforced via a 2010 book with that title.

The Book, China Dream

Author Liu Mingfu, a Colonel and professor at Beijing's National Defense University, described in detail his dream for the military in the book China Dream. The book's chapters represent a look at several aspects of the "dream." The three chapters that open the book are dedicated to returning China to the number one place in the world. This is followed by chapters about the role of the Communist Party (proper governance), strategy, delusions about the US, the need for a strong military, and the desire of other countries to cause China to collapse. Thus, it describes many of the crucial issues pertinent to the overall wishes of the leadership: maintain the party, strive to be number one in the world, utilize strategy and the military to obtain objectives, keep a close watch on the US, and be aware of those desiring to hurt China. In January of 2013, during an interview with the Australian press, Liu offered an example of why it is necessary to keep an eye on the US. He stated that the U.S. was building a mini-NATO to contain China, using Japan and Australia in that capacity. 716

The current popularity of *China Dream* was not always the case. When it first appeared three years ago there were several negative assessments of its value. While Liu maintained that his book did not

⁷¹⁵ Meng Xiagqing, "Chinese Dream Includes a Strong PLA," *China Daily* Online (in English), 8 October 2013.

⁷¹⁶ John Garnaut, "Shun U.S. 'Tiger' and Japanese 'Wolf,' Chinese Colonel Warns," *The Age Online*, 22 January 2013.

represent official policy, others stated that China should not challenge the US and should keep a low profile, as in the past.

Today, however, just the opposite is true. Not only has the title of the book been picked up and repeated by numerous sources, but so have many of its themes. The book has even been reprinted after initially being pulled from the shelves in 2010. Xi first used the China Dream reference in November of 2012. Upon taking office he made publicized visits to each branch of the Armed Forces, to include the armed police. He continued to stress the need to follow Party dictates and to be combat ready in order to win in warfare.

Others soon picked up on Xi's motto of a strong military being the dream of the Armed Forces. By March the military paper, *Jiefangjun Bao*, had a page one editorial on the China Dream concept on its website. It was noted that the China Dream was a "dream of being a strong country and also having a strong army." On 12 March a significant item was released, that being a circular from the People's Liberation Army's (PLA) General Political Department that required all PLA and armed police units to study and implement points from Xi's speech at the first session of the 12th National People's Congress. The speech was said to have "strategic guiding significance" for handling issues of importance. It was noted that understanding the status and role of national defense in the fulfillment of the China Dream was a way to bring the thinking of the military in line with Chairman Xi's strategic judgment on the international strategic situation. The strategic strategic situation.

The military is now fully behind the concept. Xu Qiliang, Vice Chairman of the Central Military Commission; Zhang Yang, General Political Department Director; the NDU Research Center on Socialist Theory; the Party Committee Central Group of Unit 73061; and Xiang Nanlin and Du Benyin, PLA deputies to the National People's Congress, have all publicly supported the program. Two *Xinhua* domestic news service authors noted that a strong army dream requires the

⁷¹⁷ No author listed, "Rally Wisdom and Forces to Hold Up 'China Dream'..." *Jiefangjun Bao Online*, 5 March 2013, p. 1.
⁷¹⁸ Ibid

establishment of a combat power standard as the fundamental standard for force building (see Chapter Eleven for a discussion of combat power). This requires that missions be expanded; that the evolution of war patterns, operational forms, and the front end of the revolution in military affairs, dealing with the most complicated situations first, be studied; and the force's deterrence capabilities under informatized conditions continuously enhanced. Yellow Qiliang noted that implementing combat power standards in force building through researching operational issues and mastering the law of winning in war and the law of combat power building should be the future focus.

Finally, *Qiushi Online*, the official journal of the CPC's Central Committee, carried an article by Zhang Yang, the Director of the PLA's General Political Department, in which he stated that "President Xi has engaged in strategic planning in which he has placed national defense and army building under the overall goal of the China Dream..."⁷²¹

Not everyone, of course, is pleased with Xi's dream. On 21 March 2013 Chinese dissident/activist Ai Weiwei stated on a US Twitter blog that "my dream is to stop dreaming and face reality." Ma Yong, a fellow at the Institute of Contemporary History of the Chinese Academy of Social Sciences, stated that to fulfill the China Dream it is first necessary to cure the "China Ailment." Here he is referring to a list of inadequacies that the population has demanded to be changed, including an end to corruption, better food safety (and the riddance of fake goods), better health care (especially in light of the nation's severe environmental problems), educational reforms (an end to cheating and fake diplomas), and legal reform, among others. As some have noted

⁷¹⁹ Wang Hongshen and Li Xuanliang, "Fulfill the 'Strong Army Dream' with Concrete Action of Being Able to Fight Victorious Battles," *Xinhua Domestic Service*, 19 March 2013.

⁷²⁰ No author noted, "Xu Qiliang Inspects Beijing Military Region, Emphasizing Unifying Thinking, Gathering Strength,..." *Xinhua Domestic Service*, 12 April 2013. ⁷²¹ Zhang Yang, "Use the Goal of a Strong Army as a General Guide in Promoting Ideological and Political Construction in the Military," *Qiushi Online*, No. 8, 16 April 2013.

⁷²² Ching Cheong, "Reform Hopes Fade with China Dream," Singapore *The Straits Times* Online, English edition, 25 March 2013.

about the Communist Party "how can a system be clean if you are your own supervisors?"

The lack of enthusiasm by some for Xi's program is understandable. The population asks "who got China into this situation" in the first place, and only the CPC can be blamed. The Hong Kong press, in particular, is strident in its condemnation of many CPC policies. For example, *Ming Pao Online*, a website supportive of pro-democracy figures in China, recently wrote that several university teachers in China had reported receiving instructions telling teachers not to discuss seven topics with students, "namely universal values, freedom of the press, a civic society, civic rights, historical mistakes made by the Communist Party, elite cronyism, and judicial independence." The website noted that if the "gag order" is a rumor, then the Party should so clarify it as such. If it is true, then the Party should apologize.

Discussions of Strategy in China Dream

Liu's argument regarding strategy in *China Dream* is that "strategic chance favors the country with strategic preparations." Liu states that a nation can only capitalize on strategic opportunities if it has made quality strategic preparations. This, however, is not enough. A nation must also possess "premium" strategic innovation, strategic design, and strategic guidance." Preparations, he makes clear, are not just about modernizing the military but also include strategic planning for future operations. Planning, on the other hand, can easily be construed to mean the construction in peacetime of ways to develop *shi* (a strategic advantage).

Liu also stressed the pacifist nature of Chinese military strategy. He noted that China does not engage in preemptive strikes and, therefore, strategy is non-offensive. Rather, gaining the initiative by striking only after the enemy has struck is a basic strategic principle. Of

⁷²⁶ Ibid.

⁷²³ No author, "Gag Order Inimical to China," Hong Kong *Ming Pao* Online, English Page, 14 May, 2013.

⁷²⁴ Ibid. See http://www.fas.org/nuk/guide/china/doctrine/pills2/part08.htm.

⁷²⁵ Liu Mingfu, *China Dream*, Beijing, 2010, pp. 24-25.

course, this latter comment is not the position taken by other Chinese military authors. Several argue that in the information age, one can ONLY gain the initiative by striking first. Liu himself contradicts his focus on the defensive nature of Chinese military culture. He states that the basic characteristic of PLA culture is strategic active defense, and offers the example of Emperor Wu of Han. Liu writes that Wu's army attacked the Huns far away in the desert with "the goal of defense through offense, defense through attack; this was still considered active defense." 727

Christopher Hughes, a professor at the London School of Economics and Political Science, thinks that Liu uses this idea of the offense quite uniquely. Hughes's book review of *China Dream* notes that Liu "looks to the founders of three great dynasties, Qin Shihuang, Han Wudi, and Tang Taizong, as models of using force for unification, going on the offensive to expel enemies, and combining soft with hard power." ⁷²⁸

The art of strategy is a focus for Liu. He writes that

The 'strategic art of war' of winning without fighting is when military struggles are decided not by strength but by strategy. Past generations of Chinese military strategists emphasized 'plan first, then fight,' 'take action only after plans have been made,' and 'the most important thing in the use of military force is first making plans'...China's art of war is a way of thinking that 'values strategy' and 'uses planning.'⁷²⁹

As before, Liu's words are not the final authority. Other authors disagree with Liu about the need to win without fighting. For example, while most Western audiences like to think of Sun Tzu's maxim of "winning without fighting" as representative of Chinese military culture,

⁷²⁹ Liu, p. 119.

⁷²⁷ Ibid., p 118.

⁷²⁸ Christopher R. Hughes, "In Case You Missed It: China Dream," at http://www.thechinabeat.org/?p=1814.

Chinese Colonel Jin Lixin disagreed. He wrote that being able to break the enemy's resistance without fighting "is the rarest of rarities." What Chinese history demonstrates, according to Jin, is an offensive philosophy of "attacking the enemy's army in the field." ⁷³⁰

With regard to objective reality and subjective initiative, Liu references US scholar Arthur Waldron, who noted "China's strategic thinking has always advocated using the least amount of force and taking the maximum advantage of objective conditions by applying strategy." Finally, with regard to a comparison between Sun Tzu and Clausewitz, Liu quotes famous Western strategist Liddell Hart, who wrote that if the influence of *On War* could have been subject "to the harmony and balance of Sun Tzu's thought, many of the major disasters suffered during the two world wars could have been avoided." ⁷³²

A Return to Mao?

There is growing speculation that Xi Jinping has decided to emphasize Maoist thought in the coming years. Whether Mao's thoughts will trump those of Marx is unknown at this point, but the Maoist vector is becoming clearer. For example, the *Wall Street Journal* reported that Xi is embracing Mao and vowing that "our red nation will never change color." Xi has borrowed from Mao's playbook by launching a "rectification" campaign to purify the Party and tighten discussion on ideas such as democracy. Xi's Maoist leanings have delighted the followers of indicted CPC official Bo Xilai, who had led a Maoist revival movement earlier. A childhood friend was quoted as stating that Xi spent hours reading books on Marxist and Maoist theory as a teenager. Many think a deal has been struck with Bo, his followers, and other "princelings"—the sons and daughters of party chieftains—in which Bo is charged with lesser crimes and Bo's supporters throw their weight behind Xi.

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⁷³⁰ Jin Lixin, "Ye Jianying and Traditional Chinese Military Culture," *China Military Science*, No. 1 2002, pp. 65-72.

⁷³¹ Ibid.

⁷³²Liu, p. 120.

⁷³³ Jeremy Page, "China's Leader Embraces Mao as He Tightens Grip on Country," *The Wall Street Journal*, August 17-18 2013, pp. A1, A10.

In addition to the *Wall Street Journal* article, there are those in China's home grown media who also believe that Mao's popularity is on the rise. Xi noted in May 2013 that democratic centralism is a fundamental organizational system and leadership system of the party. This, he says, is the party's greatest institutional advantage. A few lines later Mao is quoted as stating that "democratic centralism is both democratic and centralized, and it unites these two seemingly conflicting things in a certain form." Democratic centralism is "centralism on the foundation of democracy, and democracy under the guidance of centralism." The system "enables governments at all levels to centrally manage all of the affairs entrusted to them by the people's congresses..." And the journal carrying the article? It was none other than the media flagship of the CPC's Central Committee, *Qiushi Online*.

In June 2013 the *People's Daily* "blasted bureaucracy" and labeled it a lingering ghost. Mao was quoted as comparing bureaucratists to "mythical statues made from mud," and Xi stressed furthering partypeople ties as a way to rid the nation of these ghosts. In another article Mao was quoted as having stated that it is necessary, at times, to launch intensive rectifications to correct subjectivism, sectarianism, and stereotyped Party writings. Xi, for his part, stressed improving the capacity for self-purity, self-improvement, self-development, and self-innovation. Table

In July Xi stated that Mao's remarks on Party member's work styles still have far-reaching ideological and historical significance. Mao called for working with modesty and prudence and guarding against conceit and impetuosity. Xi stated that following these guidelines will help keep the Party pure and called China's revolutionary history the "best nutrient" and the way to bring "positive energy" to Party

⁷³⁴ Wang Chuanzhi, "Democratic Centralism: The Core Mechanism of China's Political System," *Qiushi* Online, 16 May 2013.

⁷³⁵ No author provided, "CPC Newspaper Blasts Bureaucracy as 'Lingering Ghost," *Xinhua* (in English), 24 June 2013.

⁷³⁶ Renmin Ribao commentator, "Work Hard to Enhance Our Capacity for Self-Purity, Self-Improvement, Self-Development, and Self-Innovation—Third Commentary on Studying and Implementing the Spirit of a Speech Delivered by Comrade Xi Jinping on 18 June," *Renmin Ribao*, 26 June 2013, p. 1.

members.⁷³⁷ In another July article a staff commentator for *Renmin Ribao Online* stated that Xi repeatedly emphasized the crucial role of system building for improving education activities. The commentator then brought in Mao on this point, noting that Mao had stressed system building in mass line (building contacts with the masses) education campaigns.⁷³⁸

In August, Mao was quoted as stating that "one has to be a student of the people before becoming their teacher," and now, decades later, the Communist Party is invoking this tradition of "learning from the people." Xi Jinping noted in June, while launching a clean-up campaign against poor work styles, that "winning or losing public support is an issue of CPC survival." Xi called on party officials to take the people as their teachers months earlier. ⁷⁴⁰

These developments have placed Xi in a crossfire between the wishes of liberals and leftists. The former hope he follows in the footsteps of his father, Xi Zhongxun, and moves China toward political reform and democratic development. Leftists hope he follows in the footsteps of Maoist orthodoxy and favors state control. Further, Xi must balance three other factions: the Shanghai faction of Jiang Zemin; the Communist Youth League faction of Hu Jintao; and the princelings, the faction composed of sons of revolutionary leaders, which includes Xi. In November 2012 Xi voiced his interest in the economic concepts of Deng Xiaoping. Thus he is playing all sides at this point as he attempts to form his own political agenda.

Conclusions

To fulfill the dream of creating a strong army, China must establish a combat power standard that builds its force to accomplish this

⁷³⁷ *Xinhua* (in English), 12 July 2013.

⁷³⁸ Staff Commentator, "Only by Changing into a System Is It Possible to Reinforce Achievements—Fifth Discussion: Holding Mass Line Education and Practice Activities Well," *Renmin Ribao Online*, 21 July 2013, p. 1.

⁷³⁹ Xinhua (in English), 16 August 2013.

⁷⁴⁰ Ibid.

⁷⁴¹ Cary Huang, "Xi Calls for Maoist Indoctrination for Younger Generation," *South China Morning Post* Online (in English), 25 July 2013.

goal. This will require rigorous training and attention to detail. Preparations must be made in peacetime to be ready to fight if the world situation forces the PLA to act in such a manner, according to some military commanders. Most importantly, Xi Jinping stands behind this goal.

At this stage of the civilian side of the dream process, Xi's China Dream appears to be leaning in the direction of Maoist thought more than any other. One can expect strategic thought and the PLA's dream expectations to be affected by a Maoist choice as well. Some of the initial responses to Xi's speech on ideology at the November 2013 Third Plenary Session of the 18th Communist Party of China's (CPC) Central Committee were critical of the direction in which Xi was taking the country. Beijing-based independent scholar Chen Ziming was particularly strident in his condemnation of the speech. To Chen the speech "shows that this 'second-generation red' leader is the same as the disgraced former Chongqing party secretary Bo Xilai: they are both representatives of ultra-leftism indoctrinated with fundamentalism."⁷⁴² Further, Chen stated that "Xi's beloved 'China Dream' is not the continuance of Deng Xiaoping's 'reform and openingup." Rather it is an extension of Mao's philosophy of power. If this model rules, Chen added, China can expect another Cultural Revolution and a new world war "is slated to break out" "744

Chen's comments are not unexpected, as the Hong Kong press is known for voicing opposing commentary on events in Beijing. For example, Willy Lam Wo-lap branded Xi a great dictator who wants to become the "Mao Zedong of the 21st Century." Robert Lawrence, writing for Hong Kong's *South China Morning Post*, called Xi a "Deng Disciple," referring to the fact that Deng Xiaoping preserved Mao to uphold the party. Xi has visited Mao's shrines, adapted Mao's party rectification and mass line campaigns, and defended Mao's leadership,

⁷⁴² *Ping Kuo Jih Pao* Online, 6 November 2013. No title or author provided.

⁷⁴³ Ibid.

⁷⁴⁴ Ibid.

⁷⁴⁵ *Ping Kuo Jih Pao* Online, 18 November 2013. No title or author provided.

plus restricting condemnation of Mao's campaigns that terrorized the masses. Lawrence noted the following:

In 1981, at the sixth plenary session of the 11th Central Committee, a 'Resolution on Certain Questions in the History or Our Party' was passed as judgment of Mao's historical role...The resolution called Mao 'a great Marxist and a great proletarian revolutionary, strategist, and theorist.' It admitted he 'made gross mistakes during the cultural revolution, but, if we judge his activities as a whole, his contribution to the Chinese revolution far outweigh his mistakes.' ⁷⁴⁶

Liberals, then, have worried about Xi's affection for Mao. He has clearly favored party control over outright reform, as might be expected.

Official media, of course, were complimentary about the progress the nation is making in its drive to accomplish the China Dream. One report noted that advancing toward the objective of the China Dream and fulfilling the "two 100-year" objectives of struggle can only be accomplished with a strategic environment of harmony, stability, and prosperity. The goal of the China Dream is to rejuvenate a great nation, according to the press releases from the CPC and the Xinhua news agency. In this sense the nation hopes to eradicate the feeling of humiliation that has hung over the country for many years now. As one summary of the plenum recorded:

With immense political courage and political wisdom, the plenary session profoundly summed up historical experience; positively responded to the people's anticipation; directly faced practical and development problems; proceeded from the strategic height of achieving the great rejuvenation of the Chinese nation and

747 "Thoroughly Understand Major Significance of Comprehensive Deepening of Reforms...," *Jiefangjun Bao* Online, 14 November 2013, p. 1.

⁷⁴⁶ Robert Lawrence, "Deng's Disciple," *South China Morning Post* Online (in English), 15 November 2013.

the China dream to depict, from a new historical starting point, an new blueprint, new vision, and new objective for comprehensively deepening the reform to win new victories for socialism with Chinese characteristics...⁷⁴⁸

This will continue to be Xi's China Dream quest, to balance the goals and wishes of the CPC against the survival wishes of a majority of the population who are fed up with pollution, tainted products, high level corruption, and a host of other issues. Invoking the memory of Mao may backfire on him, as people know much more now than they did in the past. Xi will be treading on a very tricky path as he moves forward.

⁷⁴⁸ Ren Tianyou, Zhao Zhouxian, and Yan Xu, "Overall Plan and General Mobilization for Comprehensively Deepening Reform," *Jiefangjun Bao* Online, 15 November 2013, p. 1.

PART FIVE: CONCLUSIONS AND APPENDIXES



CHAPTER THIRTEEN: CONCLUSIONS

Introduction

In 2006 Chinese retired Lieutenant General Li Jijun noted that "Therefore, in war direction, understanding the adversary's ideological culture and strategic thinking method is as important as finding out the adversary's military deployment."⁷⁴⁹ China's strategic thinking method, as this book has demonstrated, has many aspects that are different than the US military's concept of strategy. This work has offered suggestions on how to consider these differences and better visualize Chinese strategy.

There appear to be several important ingredients that work together to inform the PLA's strategic concept. First, there is the impact of three individuals who are constantly resourced for guidance: Sun Tzu, Karl Marx, and Mao Zedong. Second, these men imparted specific theoretical guidance (an objective-subjective thought process, the use of stratagems, the necessity to develop strategic advantage [shi], and the use of planning and guidance mechanisms) that influence strategy's development.

National interests (sovereignty, resource requirements, territorial integrity, etc.) help direct the planning and guidance of strategy. Assessments of other countries' comprehensive national power (CNP) are developed to find areas where China has an advantage. Strategy is designed to be flexible, innovative, and creative. Each of these items is summarized below for their impact on strategic choices.

China's Strategic Thought Icons

The three icons of military strategy in China, Sun Tzu, Karl Marx, and Mao Zedong, continue to play a prominent role in strategy's development. In a 2003 article on military strategy, retired Major General Peng Guangqian noted the following:

⁷⁴⁹ Li Jijun, "Military Strategic Thinking and Scientific Decision-making," *China Military Science*, No. 1 2006, pp. 28-38.

China is the homeland of Eastern strategy and has a good tradition of strategic thinking. The *Art of War* by Sun Tzu reveals many key points in military philosophy...Mao Zedong created a whole set of proletarian strategic theories which represent theoretical achievements in the combination of Marxist principles with the practice of Chinese revolutionary war. It is still the magic weapon for us to defeat our enemies.⁷⁵⁰

Peng thus stressed the importance of all three icons. Peng noted that military strategy is not the result of subjective randomness, but rather is a serious cognitive activity requiring foresight. Marxism provides China with a way to create and innovate with regard to strategic theory. ⁷⁵¹

In a 2011 article on the birthday of the Communist Party in China, Zhang Qinsheng stated that "The ideology of active defense strategy is a lofty ridge extending all through that mountain range, and it is the soul of Marxist military theory with Chinese characteristics." Thus, in addition to providing China with its People's War theory, Marx receives credit for active defense as well. General Secretary Xi Jinping, in a speech in December 2013, urged all Party members to continue to learn Marxist philosophy. The state of the communist Party in China with its People's War theory, Marx receives credit for active defense as well. General Secretary Xi Jinping, in a speech in December 2013, urged all Party members to continue to learn Marxist philosophy.

It is interesting that some 2500 years after Sun Tzu, 130 years after Marx, and 38 years after Mao, the theories of all three men continue to remain influential. The recent third plenum of the Communist Party, for example, endorsed the "correctness" of the Communist Party, Mao, and Marx. New Chinese President Xi Jinping, while admitting to some

⁷⁵⁰ Peng Guangqian, "Developing Theories of Military Strategy," *China National Defense News*, 22 May 2003.

⁷⁵¹ Ibid.

⁷⁵² Zhang Qinsheng, "The Strategy of Active Defense is an Ideology Which Will Shine Forever: A Tribute on the Birthday of the Glorious Communist Party of China," *Xuexi Shibao* Online, 18 July 2011, pp. 1, 7.

⁷⁵³ Xinhua (in English), 4 December 2013.

⁷⁵⁴ Verna Yu, "Mao's Former Secretary Li Rui Says You Always Had to Agree with Him," *South China Morning Post* Online (in English), 21 December 2013.

mistakes made by Mao, continues to support him. Xi noted in an article on Mao that "neither can we totally repudiate them [revolutionary leaders] and erase their historical feats just because they made mistakes," mistakes which "have their subjective factors and personal responsibility." Mao's former secretary, Li Rui, stated that this mistake included the deaths of 30 million countrymen. That is quite a mistake. The article ends noting that "the seven top leaders [of China] visited Mao's mausoleum in Tiananmen Square, making three bows toward Mao's seated statue and paying their respects to the remains of Mao."

Xi also expressed his support for Marx. In a recent speech he noted that "Marxist philosophy profoundly reveals the general rule of the objective world...one important point is using Marxist philosophy to educate and arm the entire party." Further, he noted that "we should handle well the relations between respecting the objective law and bringing into play the subjective initiative." With regard to Sun Tzu, it should be noted that for over a decade the Chinese have regularly held "Sun Tzu Art of War" conferences. Leading strategic thinkers in the PLA attend and address the conference. The conference organizers have extended invitations to foreign audiences as well. The conferences are well attended and provide a continuing emphasis on the work of Sun Tzu and how it can be applied to modern conditions.

The Elements of Strategy

Several prominent Chinese strategists focused attention on the concepts of objective reality and subjective guidance. The thought process seems to be brought up continuously by the best military strategists. Objective reality refers to material things in the strategic environment. Subjective thought refers to the ability to utilize, influence, or manipulate objective reality. These two aspects of strategy are

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⁷⁵⁵ Xinhua (in English), 26 December 2013.

⁷⁵⁶ Verna Yu.

⁷⁵⁷ *Xinhua*, 26 December 2013.

⁷⁵⁸ "At the 11th Collective Study of the CPC Central Committee Political Bureau, Xi Jinping Stresses the Need to Push Forward the Entire Party to Study and Master Historical Materialism, Understand the Rules Better, and Promote the Work More Proactively," *Xinhua Domestic Service*, 4 December 2013.

considered as a whole, and they play an important role in helping China determine strategic targets and in manipulating historical, geographical, economical, military, and political issues of CNP to achieve strategic objectives. When China's assessment of objective reality reveals weaknesses in other countries or in international developments, such as with the cyber topic, strategists take full advantage of them. Both case studies in this work demonstrated how this occurs.

National interests are the start point and destination of strategic planning and guidance, since they determine strategic situations and strategic intent. The ultimate goal of strategy is to defend or seize national interests. The expansion of national interests results in increased demands for strategic capabilities. There must be a balance between a country's strategic capabilities and the expansion of a country's national interests. Perhaps one can assume from this statement that China's desire to use its new military capabilities is a result of its expanded set of national interests. Kang Wuchao stated that national interests determine the selection of China's strategic orientation. He listed three factors that help determine national interests. First, territorial integrity and sovereignty are the most important factors. Second, geographic strategic interests have been growing in importance. They determine strategic orientation based on a country's goals for future growth beyond its borders. Finally, the integration of the two issues (territorial security and geographic strategic interests) reflects strategic orientation. The determination of strategic orientation is the result of the composite effects of various subjective and objective factors. 759

With regard to the strategic environment, the thoughts of Fan and Ma were most important. They wrote in *The Theory of Military Strategy* that an understanding of the strategic environment is the prerequisite for formulating and implementing military strategy. This relationship between the strategic environment and military strategy is a relationship between objective reality and subjective guidance in their opinion. The strategic environment and military strategy is a relationship between objective reality and subjective guidance in their opinion.

761 Ibid.

⁷⁵⁹ Kang Wuchao, "Analysis of National Interests and Strategic Orientation," *China Military Science*, No. 2 2007, pp. 84-90.

⁷⁶⁰ Fan Zhen Jiang and Ma Bao An, *On Military Strategy*, National Defense University Book Series, 2007, p. 59.

Two other elements of strategy stressed in this work are stratagems and the idea of shi. A stratagem is a Chinese historical method designed to mislead an opponent's perception, thinking, emotion, and will. Interestingly, the Chinese have recommended agency that can develop complex establishing an incorporating information devices. science and This application must be designed by a special agency rather than a few masterminds, and will apply to systems. Combining stratagems reminds one of the concept advocated in the 1999 book, Unrestricted War, where the authors desired to develop what they termed "cocktail war," or warfare that was based on combining a host of military (conventional, space, electronic, guerilla, etc.), above-military (diplomatic, intelligence, technological, etc.), and non military (financial, trade, legal, media, etc.) issues to achieve a result. This was termed a "new concept of weaponry." Stratagems mixed with cocktail war combinations could produce lethal outcomes for which nations are not prepared if they have not been investing time in analyzing Chinese strategic thought. Retired General Dai Qingmin, former head of the General Staff's Communications Department, in his 2008 book New Perspective on War, stipulated a concept similar to cocktail war, noting that it is necessary to paralyze an enemy force's transportation, financial, telecommunications, and power systems in order to introduce deterrence.

Shi refers to the attainment of a strategic advantage over an opponent. Chapter One of Sun Tzu's Art of War notes that it is an important concept and that "when an advantageous assessment has been heeded, one must create for it a favorable configuration to assist the war effort externally. A favorable configuration is one that signifies the creation of power in accordance with advantage." Cocktail war could be ascertained as a way to achieve a favorable situation with a coordinated, comprehensive attack utilizing specific components of military, non-military, and above-military resources. Seeking a strategic advantage via cyber espionage, for example, would entail looking for and finding vulnerabilities in an opponent's system and planting viruses or Trojans if possible. Developing such a strategic advantage can result

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⁷⁶² Victor H. Mair, translator, *The Art of War*, Columbian University Press, 2007, p. 78.

in the ability to "win victory before the first battle" (due to control over an adversary's electrons or forces in peacetime) if conflict were to erupt.

Other important Chinese theorists stated that strategy must continue to be flexible, innovative, and manipulative. Otherwise, strategists will not be able to invoke the use of stratagems. For example, with regard to flexibility, author Xiao Tianliang devoted an entire part of his book, *War Control*, to "the flexible and appropriate use of the means of warfare." Strategy is also comprehensive, as was demonstrated in the discussion of China's CNP concept. Examining China's CNP and that of other nations enables Chinese analysts to evaluate the home country's strengths and weaknesses against those of other nations.

In the end, the Chinese assert that the essence of strategy is to "get someone to do something for themselves they are actually doing for you." This goal was postulated as early as the *Art of War*. Chapter Six of the book, for example, notes the following: "How one can make the enemy arrive of their own accord—offer them advantage." That is, encourage them to do something for themselves that they are actually doing for you.

Is Chinese Strategy Offensive or Defensive?

Alastair Iain Johnston, in his important work, *Cultural Realism*, sought to answer which military strategy had dominated ancient Chinese thought. He had noted that there was "an almost monolithic acceptance of the view that the Chinese strategic tradition is uniquely antimilitarist, yet there is little explication of the process of analyzing this tradition."⁷⁶⁴ Many scholars had reached this conclusion due to their reliance on Sun Tzu's statement that "winning without fighting" should be the goal of commanders, or on the Confucian-Mencian denigration of the role of violence.⁷⁶⁵ So Johnston took on this analytical challenge to see if this historical reflection fit the reality of the time.

⁷⁶³ Book description found at www.bi3jia.com, accessed 10 November 2009.

⁷⁶⁴ Alastair Iain Johnston, *Cultural Realism*, Princeton University Press, 1995, p. 25. For an interesting critique of Johnston's argument, see Huiyun Feng, *Chinese Strategic Culture and Foreign Policy Decision-Making*, Routledge London and New York, 2007. ⁷⁶⁵ Ibid., p. x.

He examined the strategy of the Ming Dynasty (1368-1644) to see if it had been accommodating, defensive, or offensive. Johnston's research indicated to him that there was a balance of sort between peace and violence, but that, in the end, hard *realpolitik* or a *parabellum* thesis best defined the dynasty's strategic culture as offensive in character:

My findings suggest that, although the results are not especially strong, there is sufficient evidence to show that the *Seven Military Classics* do share a preference for offensive strategies over static defense and accommodation-type options. There is also a pervasive acceptance of absolute flexibility as a critical element in strategic choice. This flexibility occurs within the context of an overall preference for offensive violence. ⁷⁶⁶

Flexibility meant attacking or defending according to opportunity. Security was possible only if proper preparations were made and violence applied as needed. 767

An examination of a host of contemporary sources indicates that Chinese military strategy today exhibits many of the traits that Professor Johnston discussed, in particular its offensive flavor. Strategy's use in China can be deemed flexible and able to accommodate an active defensive or offensive posture at the discretion of commanders.

Two examples from 2007 and 2010 demonstrate the continuing focus on the offense. In Fan and Ma's 2007 book, *The Theory of Military Strategy*, Chapter Ten was titled "The Guiding Ideology of Battle." Subsections were devoted to conducting offensive attacks with flexibility and proactively performing intensive sabotage on the enemy's vital systems. Of interest is that there was no mention of defense in any of the chapter headings or subsections of the book.

⁷⁶⁶ Ibid., p. 30.

⁷⁶⁷ Ibid., p. 250.

In 2010 Zhang Yu, an associate professor at the Shijiazhuang Army Command Academy, and Academy lecturers Liu Sihai and Xia Chengxiao wrote that a "post-emptive" move is "not an effective way to seize the initiative on the informatized battlefield." To seize the initiative and control war in the initial state of conflict, the active offense must be emphasized. That is, when signs of enemy invasion are clear, then China should seize "early moments of opportunities to dominate the enemy" through offensive operations; this cannot be separated from active defense.

Thus, Chinese thinking on winning local wars under informatized conditions appears to be an offensive strategy. This focus on fighting, to include initiating conflict instead of using a post-emptive move, seems to be in accord with what one PLA officer stated a few years back, noting that breaking the enemy's resistance without fighting is "the rarest of rarities." Another author indicated that active defense is actually a stratagem intended to draw an opponent into a Chinese-designed trap. Once snared in the trap, Chinese forces immediately go on the offensive.

The concept of winning local wars under informatized conditions is a reaction to the need to command and control confrontation on China's borders or nearby seas. Forces continue to develop various capabilities due to the expanded number of military tasks being undertaken, from extended border defense, to pipe-laying activities of construction units in foreign lands, to peacekeeping activities, and to the expanded naval activities in the seas surrounding China.

The PLA continues to focus on carrying out reconnaissance activities and system sabotage, and taking the initiative in military affairs. Chinese cyber activities and East China Sea pronouncements

⁷⁶⁹ Ihid

⁷⁶⁸ Zhang Yu, Liu Sihai, and Xia Chengxiao, "On the Art of Controlling War Situations in Informatized Warfare," *China Military Science*, No. 2 2010, pp. 24-31.

⁷⁷⁰ Jin Lixin, "Ye Jianying and Traditional Chinese Military Culture, "*China Military Science*," No. 1 2002, pp. 65-72.

support these contentions. Further, as creative inspirations continue to push the military's "China Dream" of a strong PLA, these inclinations should only grow in intensity. A strong and transparent military can serve as a deterrent under crisis conditions.

A recent Chinese report supports this contention of a more aggressive and offensive PLA character. It was reported in late 2013 that China's national interests are expanding into space, distant seas, and the global commons. This requires that the PLA develop an all dimensional territorial view, the building of strategic projection capabilities and strengthened strategic maneuverability, and an all domain defense type force that is capable of force projection. ⁷⁷¹

The Party's Propaganda versus Reality

There is little doubt that the CPC has two party lines to keep in check as its military strategy unfolds. One is the propaganda approach, whereby the PLA is presented to the world as peace seeking. This approach is somewhat convincing if one reads only the standard media outlets. Propagandists continuously spew the party line of a peace-seeking doctrine. If one has no better understanding of Chinese strategy, the active defense concept appears peaceful. It creates an international environment in which China is perceived as a patient and negotiable opponent. The concept of "winning without fighting" fits well here.

The other party line is the need to continue the active development of the PLA in order to achieve the military's China Dream of building a first class military. Support of the military's dream has provided it with the momentum (and growing arrogance) to take greater risks than the nation normally would. The attainment of an aircraft carrier and the movement of that carrier into the South China Sea is intended to send a message to bordering nations that the PLA Navy is becoming a major player in the region. New air and naval power is being displayed in the East China Sea, as China attempts to assert its claim to the island chains there. These drives for greatness are designed to offset

Capabilities," *Jiefangjun Bao Online*, 3 December 2013, p. 6.

⁷⁷¹ Zhao Siyang, "All-Dimension Territorial View and Strategic Projection

years of humiliation, in the opinion of the Chinese, at the hands of the Japanese and US. Further, the annual increase in military capabilities is supposedly designed to protect the expanding range of Chinese national interests. The China Dream topic also helps deflect attention from the worsening domestic situation.

Thus, one should not be surprised at the twists and turns that will occur in the coming years in Chinese military strategy. Understanding the key concepts that serve as the basis for strategy's development can inform competitors' discussions of countermeasures to construct. A countermeasure could be as simple as changing the strategic environment (objective reality) upon which Chinese strategy depends.

What Is There To Learn From the Chinese Model?

What is the objective reality when a researcher or a director of grand strategy considers his strategy? It is the state of the nation, the world situation, the globe as a whole, and even the cosmic space. Or, in other words, it is the context within which the grand strategy decision-makers operate. We call it the strategic environment... the outcome of a war depends not only on the balance of the objective material strength of the belligerents, but also the subjective ability to employ it. Why could one side defeat the other in the history of wars even though both were roughly matched in strength? Why could a small nation defeat a big one and an inferior force defeat a superior one? It relates to the art of subjective guidance.⁷⁷²

From the extensive discussion of strategy covered in this work, what is important to take away is the utilization of the key concepts to develop a template for understanding the methodology and potential goals behind Chinese strategic maneuvers. Some of the less noticed strategic concepts exposed in the book included the following:

Wu Chunqiu, "Dialectics and the Study of Grand Strategy: A Chinese View," *China Military Science*, No. 3 2002, p. 146.

- The goal of stratagem manipulation is to put the stratagem developer in sync with the enemy's "intelligence-judgment-decision" process and induce the enemy to make decisions as one would expect him to do.
- Strategic concepts are incorporating objective reality's new scientific and technological developments and thereby seeking innovative and creative methodologies for 21st century Chinese strategic thought. Instead of the old Marxist thought that "technology determines tactics" it may now be time to consider that "technology determines strategy." Stratagems must make progress along with the advances of the times, such as high-tech weapons.
- Thinking has taken on an offensive character in the information age due to the necessity to maintain the initiative. For example, Xue Guoan, writing in *China Military Science* in 2010, stated that "when a favorable opportunity for battle emerges, China must not stick to its moral concept of not firing first."
- Strategy is often countermeasure oriented. It examines objective reality (discover enemy measures and technical parameters) and employs subjective initiative (stratagem and counter technical developments to eliminate these measures) and thus seeks to offset an adversary's advantages.
- Strategy is reflected in the planning and guidance to protect or develop national and core interests. The PLA must develop "strategic directors" who can unleash subjective guidance, using strategy according to the situation and working to exploit adversarial traits.

Without an understanding of the objective-subjective thought process, analytical judgments, the "essence of strategy," or the issues of *shi*, CNP, stratagems, strategic guidelines, and the offensive character of informatized war, it is the contention of this author that it is nearly impossible to comprehend the strategic direction and goals of the PLA.

For example, today China's military strategists often describe the nation's current military strategy in the following way which, without the prior discussion, would be difficult to understand further since it is so neutral or vanilla:

China's current military strategy is active defense and the core of the current system of military forces is strengthening the capability of winning local war under informatized conditions, while constantly improving capabilities for dealing with multiple types of security threats and completing diversified military tasks. ⁷⁷³

A Final Word

This work attempted to offer Western strategists specific ideas for understanding the PLA's strategic approach to the contemporary environment in a different manner. Perhaps a template of sorts for viewing the PLA's strategic moves could emerge from the analysis.

The recent Chinese declaration of an air defense identification zone (ADIZ) is but one example of a situation where a template could be applied in order to better grasp the move's strategic rationale. For example, an initial examination of the PLA's ADIZ strategy could involve addressing questions of the following type, offering a start point for understanding PLA strategy:

- What was the view of objective reality that caused the Chinese to take this action?
- How will this action serve China's national interests, sovereignty, and territorial integrity?
- What subjective reasoning went into the decision?
- What stratagem is at play here?

• What types of *shi* (strategic advantage) are the Chinese attempting to attain?

⁷⁷³ Song Zhongping, "The Requirement for 'Winning Battles' Makes Military Reform a Pressing Concern," *International Herald Leader*, 25 November 2013.

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- What assessment of Japan's CNP indicated to the Chinese that they had an advantage in certain areas of their own CNP over the Japanese that could be exploited in the use of an ADIZ that included the Senkaku Islands?
- How has the advancement of the PLA's combat power generation model assisted this effort?
- How does this development assist Xi Jinping's "China Dream" promise of developing a strong military?
- Where has the PLA overextended its reach (perhaps verifiable via the international response against China's ADIZ creation)?

Peng Guangqian, who has been quoted extensively on PLA strategy throughout this work, stated that the ADIZ "is not equal to airspace, a no fly zone, or flight information region."⁷⁷⁴ It is neither a "paper tiger nor a real tiger; it's a clairvoyant pair of eyes on a Chinese dragon, a monitoring machine installed on the porch of China's house."⁷⁷⁵ Stated another way, it is a way to monitor the strategic environment or objective reality of China's eastern coastline.

Finally, to reiterate an important point once again, policy makers and analysts must be aware of China's strategic attempts to make Western decision-makers "do something for themselves that they are actually doing for the PLA." Chinese strategists still discuss this methodology. As Li Jijun noted, understanding strategic thought is more important than understanding strategic deployments. It has been the goal of this publication to offer that understanding to Western analysts from this author's perspective.

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⁷⁷⁴ Tiger Hu Yihu and Peng Guangqian, "Tiger Talk" program, Hong Kong-based Phoenix TV, 7 December 2013.
⁷⁷⁵ Ibid.

APPENDIX ONE: U.S. TRANSLATIONS OF SHI

The popular Western Sinologist Ralph Sawyer defines this type of *shi* as the "strategic configuration of power." Victor H. Mair defines *shi* as "configuration." In his translation of Chapter One of the *Art of War*, the following is revealing of the concept:

When an advantageous assessment has been heeded, one must create for it a favorable configuration to assist the war effort externally. A favorable configuration is one that signifies the creation of power in accordance with advantage.⁷⁷⁷

William H. Mott IV and Jae Chang Kim, authors of *The Philosophy of Chinese Military Culture: Shih vs. Li*, write that *shi*h was the defining theme in *The Art of War* and that "the essence of *shih* was the dynamic power that emerged in the combination of men's hearts, military weapons, and natural conditions." Thus, while the significance of *shi* is clear to major writers and translators, what is exactly meant by *shi* is not! Further, if these scholars consider *shi* to be the key and defining theme of the *Art of War*, then analysts should pay attention to the term and investigate why it is of such significance to these scholars and linguists.

Ralph Sawyer writes in his edited version of *The Seven Military Classics of Ancient China* that *shih* is "a measure of the relative power an army derives from positional advantage combined with its overall combat strength." Positional advantage can include terrain, firepower, morale, superior provisions, and other force multipliers. The release of strategic power can vary, based on these many factors. ⁷⁷⁹ Roger Ames,

⁷⁷⁷ Victor H. Mair, *The Art of War: Sun Zi's Military Methods*, Columbia University Press, 2007, p. 78.

⁷⁷⁹ Ralph D. Sawyer, *The Seven Military Classics of China*, Westview Press, 1993, pp. 429-432.

⁷⁷⁶ Ralph D. Sawyer, *The Art of War*, Fall River Press, 1994, pp. 143-147.

⁷⁷⁸ William H. Mott IV and Jae Chang Kim, *The Philosophy of Chinese Military Culture: Shih vs. Li*, Palgrave MacMillan, 2006, p. 11.

who considers **shih** to be strategic advantage, believes **shih** can be traced back to Legalist, Confucian, and even Taoist philosophical sources. ⁷⁸⁰

Other definitions of *shi* by a host of Western sinology and Chinese experts are also available. Some of the more distinct Western definitions include the Denma Translation Group's *The Art of War*, where *shih* is defined as the power inherent in a configuration;⁷⁸¹ Francois Jullien, author of *The Propensity of Things*, who defines *shi* as the potential that originates not in human initiative but instead results from the very disposition of things;⁷⁸² William H. Mott IV and Jae Chang Kim, authors of *The Philosophy of Chinese Military Culture*, who define *shi* as the dynamic power that emerged in the combination of men's hearts, military weapons, and natural conditions;⁷⁸³ and the *Military Power of the People's Republic of China*, 2007, written by a group of US authors, who define *shi* as the strategic configuration of power, also understood as the alignment of forces. There is no direct Western equivalent of the term, according to the report.⁷⁸⁴

From this author's perspective it is Ames, however, who appears to understand the concept of *shi* best and what it means for the PLA today. His understanding appears to coincide with General Tao's understanding of the terms meaning. Ames noted that:

All determinate situations can be turned to advantage. The able commander is able to create differentials and thus opportunities by manipulating his position and the position of the enemy. By developing a full understanding of those factors that define one's relationship with the

⁷⁸⁰ Roger Ames, Sun Tzu: The Art of Warfare, 1993, Ballantine Books, p. 281.

⁷⁸¹ The Denma Translation, *The Art of War*, Shambhala, 2003. This explanation of *shih* is found on a set of cards that are sold in conjunction with the book.

⁷⁸² Francois Jullien, *The Propensity of Things*, Zone Books, New York, 1999, p. 13.

⁷⁸³ William H. Mott IV and Jae Chang Kim, *The Philosophy of Chinese Military Culture*, Palgrave MacMillan, 2006, p. 11. Mott and Kim later note that the term is also used to mean the following: threaten, manipulate, deter, power, force, influence, a situation's natural features, tendency, trend, gestures, and a person's circumstances (p. 15).

⁷⁸⁴ Annual Report to Congress: Military Power of the People's Republic of China, 2007, US Government Printing Office, p. 7.

enemy, and by actively controlling and shaping the situation so that the weaknesses of the enemy are exposed to one's acquired strength, one is able to ride the force of circumstances to victory.⁷⁸⁵

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⁷⁸⁵ Tao Hanzhang, *Sun Tzu's Art of War: The Modern Chinese Interpretation*, Sterling Innovation, 2007, p. 55.

APPENDIX TWO: DR. DAVID FINKELSTEIN'S EXPLANATION OF "MILITARY STRATEGIC GUIDELINES" 786

The US Army's Strategic Studies Institute at the US Army War College, Carlisle Pennsylvania has produced many volumes of note over the years. One of those contained the chapter on China's "Military Strategic Guidelines" by Dr. David M. Finkelstein. One of America's foremost Chinese experts on military strategy, he writes that the "Military Strategic Guidelines" are the highest level of national guidance and direction for China's armed forces, constituting China's national military strategy. The People's Liberation Army's (PLA) National Defense University (NDU) states that "The military strategic guidelines are the fundamental military policies of the party and the nation. They are the overall principles and guiding principles for planning and guiding the development and utilization of the armed forces." Since 1949, only four sets of strategic guidelines have been produced.

The guidelines provide official judgments on the following:

- The ideological and political basis for the Military Strategic Guidelines
- An assessment of the international environment and its impact on China's security
- China's overall national security objectives, its domestic objectives, and the relationship of military objectives to other national objectives
- The most likely type of conflict for which the PLA must prepare (a capabilities-based assessment, a contingency-based assessment, or both).

⁷⁸⁶ David M. Finkelstein, "China's National Military Strategy: An Overview of the 'Military Strategic Guidelines," Chapter Three in *Rightsizing the People's Liberation Army: Exploring the Contours of China's Military*, Roy Kamphausen and Andrew Scobell, editors, publication of the Strategic Studies Institute, U.S. Army War College, Carlisle PA, September 2007, pp. 69-139.

⁷⁸⁷ Study Guide for Jiang Zemin Thought on National Defense and Army Building, Beijing: Chinese Communist Party History Publishing House, April 2004, 2nd Edition, pp. 56-67, as cited in David Finkelstein's work. All other footnotes in this Appendix are derived from Dr. Finkelstein's chapter.

 Broad guidance to the PLA on how it will prepare, reform, or adjust to meet the challenges of the new situation ⁷⁸⁸

There are several key concerns or strategic issues for the PLA to consider. First is the strategic assessment, which is both a political assessment and a military assessment of the nature of contemporary warfare and specific forms of combat operations. The assessment is affected by changes in the international order, the security environment, China's domestic situation, and the nature of warfare itself.⁷⁸⁹

A second concern is adjustments to the active defense strategy. This strategy establishes broad strategic concepts and principles, and a general set of operational concepts to prosecute war at the strategic level. Higher-order strategic-level principles informing the active defense are that while military strategy is defensive, operations are offensive; counteroffensives will not be limited by space or time; once time and conditions are favorable, there will be no boundaries on offensive limits; the focus will be on the opposing force's weaknesses; offense and defensive will be conducted simultaneously; and advantages will be maximized.⁷⁹⁰

A third concern is strategic missions and objectives. They are derived from the strategic assessment and China's larger security objectives. Military combat preparations are a fourth concern, and they refer to the type of warfare the PLSA must be prepared to fight. This is usually a capabilities-based assessment and is closely linked to the issue of army building. The latter is a fifth concern and includes specific modernization objectives the PLA must pursue and reforms to enact. ⁷⁹¹

Of primary concern, of course, is the main strategic direction. This is a contingency-based assessment (instead of the capabilities-based analysis associated with combat preparations), which informs both

⁷⁸⁸ Ibid., pp. 83-84.

⁷⁸⁹ Ibid., pp. 86-87.

⁷⁹⁰ Ibid., pp. 88-89.

⁷⁹¹ Ibid., pp. 90, 94.

warfighting and war planning during peacetime. It helps determine where and against which adversarial force operations must be conducted to achieve desired results. By definition, the strategic direction refers to the operational direction with an important influence on the overall situation of the war. It becomes an impetus for army building in other strategic directions. Dr. Finkelstein points out that the military strategic guidelines, according to Jiang Zemin, serve the development strategy of the nation:

Our national development strategy is a strategy of comprehensive national development that employs the strategy of economic development as the core, and is the general strategy for guiding the coordinated development of our nation's economy, politics, military, diplomacy, culture, etc. The military strategic guidelines for the new period are a component of the national development strategy so without a doubt they should obey and serve the nation's general strategy. ⁷⁹³

The 1993 Military Strategic Guidelines specified focused development in five areas: science and technology, quality of officer and enlisted personnel (due to technological demands), prioritize army building (organizational changes), strengthen political work, and strengthen military logistics.⁷⁹⁴ These appear to be in concert with making PLA strategy go beyond mere stratagem use.

When summarizing his thoughts on China's military strategy, Jiang Zemin noted that the military strategic guidelines of the active defense employ Mao Zedong military thought and Deng Xiaoping's guidance on army building. Sun Tzu was not mentioned. Finkelstein does note, however, that the terminology and organization of the concepts "are distinctly a reflection of PLA bureaucratic culture and the intellectual constructs imposed by 'scientific' Marxism..."

⁷⁹² Ibid., pp. 91-92.

⁷⁹³ Ibid., p. 101.

⁷⁹⁴ Ibid., pp. 118-122.

⁷⁹⁵ Ibid., p. 132.

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