

INFORMATION WARFARE WITH CHINESE CHARACTERISTICS:
CHINA'S FUTURE VIEW OF INFORMATION WARFARE
AND STRATEGIC CULTURE

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ROBYN E. FERGUSON, MAJ USA
B.S., United States Military Academy, West Point, NY, 1991

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The Information Age presents a unique opportunity to China with regard to both modernization and building an Information Warfare (IW) capability. China's active pursuit of an IW capability will cause a change in Chinese strategic culture. According to Alastair Iain Johnston, strategic culture defines how a nation assesses a threat to its interests and whether it will use force to deal with those threats. The author's original research question asked how Chinese strategic culture will affect the development of a Chinese IW capability. The author answers that question by defining IW from American and Chinese perspectives and defining Chinese strategic culture, and then describes key aspects of People's Liberation Army (PLA) theorists' vision for IW. The conclusion of this thesis is that the nature of cyberspace, the futility of the static defense, and the interdependence of the defense and the offense will change some aspects of Chinese strategic culture. This finding is contrary to the expected outcome, as the original research question anticipated that Chinese strategic culture would affect the development of a Chinese IW capability.

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Name of Candidate: Major Robyn E. Ferguson

Thesis Title: Information Warfare With Chinese Characteristics: China's Future View of Information Warfare and Strategic Culture.

Approved by:

_____, Thesis Committee Chairman
LTC(Ret) Joseph G.D. Babb, M.A.

_____, Member
Nicholas H. Reigg, Ph.D.

_____, Member
Timothy L. Thomas, M.S.

Accepted this 6th day of June 2003 by:

_____, Director, Graduate Degree Programs
Philip J. Brookes, Ph.D.

The opinions and conclusions expressed herein are those of the student author and do not necessarily represent the views of the U.S. Army Command and General Staff College or any other governmental agency. (References to this study should include the foregoing statement.)

ABSTRACT

INFORMATION WARFARE WITH CHINESE CHARACTERISTICS: CHINA'S FUTURE VIEW OF INFORMATION WARFARE AND STRATEGIC CULTURE, by MAJ Robyn E. Ferguson, 68 pages.

The Information Age presents a unique opportunity to China with regard to both modernization and building an Information Warfare (IW) capability. China's active pursuit of an IW capability will cause a change in Chinese strategic culture.

According to Alastair Iain Johnston, strategic culture defines how a nation assesses a threat to its interests and whether it will use force to deal with those threats.

The author's original research question asked how Chinese strategic culture will affect the development of a Chinese IW capability.

The author answers that question by defining IW from American and Chinese perspectives and defining Chinese strategic culture, and then describes key aspects of People's Liberation Army (PLA) theorists' vision for IW. The conclusion of this thesis is that the nature of cyberspace, the futility of the static defense, and the interdependence of the defense and the offense will change some aspects of Chinese strategic culture. This finding is contrary to the expected outcome, as the original research question anticipated that Chinese strategic culture would affect the development of a Chinese IW capability.

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ABBREVIATIONS

AMS	Academy of Military Science
AWACS	Airborne Warning and Control System
COSTIND	Commission for Science and Technology and Industry for National Defense
CNA	Computer Network Attack
CNP	Comprehensive National Power
FBIS	Foreign Broadcast Information Service
FM	Field Manual
GAD	General Armament Department
GSD	General Staff Department
GPS	Global Positioning System
JP	Joint Publication
IO	Information Operations
IW	Information Warfare
IT	Information Technology
MG	Major General
OPSEC	Operational Security
PLA	People's Liberation Army
PSYOP	Psychological Operations
RMA	Revolution in Military Affairs
SCOL	Senior Colonel

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CHAPTER 1
INTRODUCTION

An Information Age Dilemma

The information age has forced an interesting dilemma on the People's Liberation Army (PLA). The PLA's assessment of cyberspace's boundless nature, the integrated nature of the defense and the offense, as well as the futility of a static information warfare (IW) defense will force the PLA to adapt offensive IW strategies in order to meet basic self-defense requirements. It will cause Chinese strategic culture to change, or at the very minimum, will cause China to alter its strategy of the active defense. Under such circumstances, how will China continue to profess the defensive strategy published in its Defense White Paper?

There are already strong indications of offensive tendencies in the PLA's professional journal, *China Military Science*, but only nuances of such intentions in the most recent Chinese Defense White Paper, "China National Defense in 2002." According to the 2002 China Defense White Paper, China professes its national interests to include the following:

Safeguarding state sovereignty, unity, territorial integrity and security; upholding economic development as the central task and unremittingly enhancing the overall national strength; adhering to and improving the socialist system; maintaining and promoting social stability and harmony; and striving for an international environment of lasting peace and a favorable climate in China's periphery. (China National Defense in 2002, 3)

The document lists several goals and tasks that support those interests, in particular, "To accelerate national defense development and achieve national defense and military

modernization” (China National Defense in 2002, 4). It also cites the military strategy of “active defense” as the means to

pursue a principle featuring defensive operations, self-defense and attack only after being attacked. In response to the profound changes in the world’s military field and the requirements of the national development strategy, China has formulated a military strategic guideline of active defense in the new period. (China National Defense in 2002,4)

The White Paper does not expand the meaning of “military strategic guideline of active defense in the new period.” Is this a foreshadowing of possible changes to the active defense strategy to address new threats which the information age brings?

The 2002 Chinese Defense White Paper cites that its defense policy is meant to deter war and the PLA, through strength, will protect China from “the harm of war” (China National Defense in 2002, 4). The 2002 Chinese Defense White Paper assesses that Mao’s people’s war concept continues to have a role, and that China will continue to rely upon “the strength of the people in national defense building . . . [and] . . . [will create] . . . “new ways of fighting so as to get fuller play to the strength of a people’s war” (China National Defense in 2002, 5). Interestingly, Chapter IV, which discusses “National Defense Building,” has one section entitled “Land and Sea Border Defense,” but does not discuss defense of cyberspace (China National Defense in 2002, 13). However, it is possible that future versions of China’s Defense White Paper may include a section entitled “Cyber Defense,” or “Information Defense.” The theoretical writings of PLA officers in *China Military Science* indicate the shift towards such a mentality.

With regard to modernization, China regards the information revolution as presenting a unique opportunity to “accomplish the historical tasks of mechanization and information technology (IT) application, thereby bringing about leapfrog development in

the modernization of the military” (China National Defense in 2002, 4). Such intent is also reflected in recent PLA literature.

One prominent PLA theorist Senior Colonel Wang Baocun, (head of Academy of Military Science Foreign Military Research Division’s second office and key author of articles pertaining to the revolution in military affairs (RMA)), outlines the PLA’s strategy for reform. The PLA’s long-term plan for modernization is to simultaneously reform and “informationalize” the military.¹ According to the Chinese RMA literature, reform entails a radical change in organization and equipment. A movement from quantity to quality; from an infantry based army to a rapidly deployable, mechanized one. “Informationalization” entails embracing all the opportunities and technologies the Information Age can offer and integrating them into military systems. SCOL Wang, who currently assesses that the PLA is “semi-mechanized or mechanized with little informationalized weaponry,” explains the strategy. “The PLA will push forward the military reform and the RMA, at the same time, weighing more towards the former [mechanization] in a certain coming period of time and then speeding the pace of the latter [informationalization]” (Wang 2001, 154). Initially, this transition will weigh more heavily towards the effort of reform, i.e., reorganization and mechanization of the PLA, and then the efforts will shift more towards those of informationalization.

It is clear that SCOL Wang sees this as a unique opportunity for the PLA. While modernizing, China may be able to “skip generations” of development while closing the gap with more modern militaries. “There have only been a few such opportunities in the entire path of human history. By grasping the opportunity, we can close the gap with the militaries of developed countries” (Wang 2001, 154).

From his perspective, the strategy of pursuing simultaneous mechanization and informationalization will allow the PLA to change while maintaining its ability to respond to contingencies.

the PLA will give priority to developing C4I systems, precision attack weapons, electronic equipment and various information weaponry. The advantage of pursuing both mechanization and informationalization at the same time is that it can keep the PLA stable, take care of the recent needs of the military, keep high readiness and deal with possible contingencies, and in the meantime increase the PLA's informationalization level and gradually close down the gap with the advanced militaries. (Wang 2001, 154)

However, his literature does not address the idea that along with systems development, issues such as implementation and training will have as much to say about how well the Chinese integrate new, modern, informationalized systems into the force.

In his article, "Emphasis on Strategy: Demonstration of Oriental Military Culture," author Li Bingyan presents cultural issues which may have bearing upon the PLA's ability to develop and integrate the systems that will enable it to reach its lofty modernization goals. He discusses several aspects of Chinese culture, and specifically, Chinese military culture which must change if the PLA hopes to compete with Western militaries. He asserts that Chinese culture must overcome thousands of years of social conditioning that have downplayed the role of technology in favor of scholarship and morality:

reject a hundred schools of thought, esteem only Confucianism," and the idea of 'emphasize the way and not the means' and emphasize officials, not technology' gained the upper hand and became a long-standing habit in national culture. This was manifested in social strata, where a strong officialdom blocked the path toward science. Over the past thousands of years, a scholar's highest hope was to pass the exam to become an official. Such people regarded scientific research as the work of men who were clever with their hands. This led to the Chinese people never forming up a sociocultural atmosphere in which science was highly

regarded. In contrast to Westerners, who held up scientific geniuses as gods, our people regarded honest and upright officials as their saviors. (Li 2002,9)

He further asserts that the Chinese method of fighting, which downplays technology and capitalizes on trickery, though useful in an environment of scarce resources, were developed because the national culture did not encourage the pursuit of science and its incorporation into warfighting. “The negative aspect of the national culture affected the development of military strategy in that it gradually lost interest in science” (Li 2002,9). He asserts that during the RMA, (which he also acknowledges is in progress), Eastern cultures must look to the West for ideas on how to incorporate technology into warfighting and indeed, must become more “Western” in their way of thinking. “While we are inheritors of our own outstanding cultural tradition, we should be boldly collecting cultural genes from Western military science and its emphasis on technology. We should make traditional strategy merge with modern science and technology and scientific methods, so as to restore the original intent of ‘Sun Tzu strategy’” (Li, 2002,10).

Strategic Culture Defined

In “Thinking About Strategic Culture,” Alastair Iain Johnston defines strategic culture as a nation’s assessment of the strategic environment, its adversary, the role of war, and the utility of using force to deal with threats. It is

a system of symbols that comprises two parts: the first consists of basic assumptions about the orderliness of the strategic environment, that is the role of war in human affairs . . . about the nature of the adversary and the threat it poses. . . and about the efficacy of the use of force . . . together these comprise the central paradigm of a strategic culture. The second part consists of assumptions at a more operational level about what strategic options are the most efficacious for dealing with the threat environment, as defined by answers to the first three questions. (Johnston, 1998, 46)

Johnston's definition explains how and why societies take action to address a security threat. Each society's cultural influences cause it to use specific criteria to define threats and the strategies it develops to respond to them. How a society defines wars, (defensive, offensive, just or unjust), affects how it chooses to respond to threats. For example, the difference between American and Chinese strategic culture explains why the Chinese view American military action in Kosovo as "hegemonic" and interfering with the affairs of a sovereign country, while Americans view their military role as that of promoting freedom, democracy, and human rights to all people.

Thesis Statement

China professes to have a defensive national strategy, relying upon the strategy of the active defense to defend its borders. The information age brings several new dimensions to the security environment to which the PLA must adjust. Among them are the boundless nature of cyberspace, the futility of the passive defense in IW, and the integrated nature of the defense and the offense. These aspects of the information age, and specifically the acquisition of an IW capability (that includes an Integrated Network Attack and Electronic Attack capability) will force the Chinese to change their defensive strategies to become more offensive. It will cause a change in Chinese strategic culture.

Research Questions

The following research questions support the presented thesis.

1. What is Chinese strategic culture?
2. How do the Chinese and Americans define IW?
3. What is the Chinese future vision of IW ?
4. How will Chinese Strategic Culture impede development of IW?

5. How will Chinese Strategic Culture foster the development of IW ?

Prior to research, the original question was “How will Chinese strategic and military culture affect the development of an indigenous Chinese IW capability?” The question was formulated with the assumption that Chinese strategic culture, with its ancient cultural aspects, would certainly influence the development of an IW capability far more than the information age would change Chinese strategic culture. However, upon conclusion of research, it was an unexpected discovery that instead of the information age conforming to Chinese strategic culture, the information age appears may have already begun to change Chinese strategic culture. It appears that “the feet [will not have] to be cut to fit the shoes.”(Mao 1972, 87)²

However, from a theoretical standpoint, it appears that the theorists from the RMA School of the PLA have recognized that the infinite nature of cyberspace requires the PLA to take a new point of view for the sake of survival, not necessarily conquest. In cyberspace, there is no such thing as a successful static defense because it cedes the initiative to an attacker. Thus, for purposes of network protection, the PLA must adapt an aggressive, offensively based, IW capability, or leave itself to be “trampled upon” by other, more aggressive military forces with IW capabilities.

Perhaps the discovery that the information age is changing Chinese strategic and military culture is not so surprising after all. The information age has changed daily lives around the world, (and change does not necessarily mean improve). The American society currently deals with how the information age has in some aspects complicated, not simplified lives. Increased efficiency has given people the ability to pack more events into a twenty-four hour day, sometimes at a cost to less technical events such as

human relations, friendships, and families. That concept has military application as well. As more technical means develop to communicate, it may or may not come at a cost to leader- subordinate, and team relationships which in the stress of combat, motivate soldiers to sacrifice themselves for the team. Thus, as in the civilian sector, militaries of every nation must find the proper balance between leveraging technologies and developing relationships that will be productive in time of war. This too will present a challenge to the PLA as it endeavors upon its two-pronged approach to modernization: reform and informationalization.

Research Methodology

Chinese strategic culture will be defined through a comparative analysis of Chinese strategic culture literature. That comparative analysis will be used to formulate a definition of Chinese strategic culture that incorporates key aspects from strategic culture literature.

American doctrine manuals will be the primary source of American IW definitions. To define IW from the Chinese perspective, a review of primary Chinese IW literature and American secondary source literature will be used.

Foreign Broadcast Information Service (FBIS) translations of Chinese IW literature published in *China Military Science* since 2000 will be the key source of information to define Chinese future vision of IW.

A comparative analysis to determine how certain aspects of Chinese Strategic culture will influence the development of a Chinese IW capability. Some aspects of Chinese strategic culture appear to have the potential to nurture the development of an IW capability and doctrine--specifically, the active defense strategy and the definition of

just war. Some aspects, such as Mao's People's War concept, appear to have not yet found a niche, and may impede development of an indigenous IW doctrine and capability.

Limitations

The goal of this research project was to discover how the information age will affect Chinese military and strategic culture. It only provides insight into the PLA's vision and intent. The views presented may not represent the viewpoint of the entire PLA, as the RMA school only comprises 2 percent of the PLA (Pillsbury 200, 269-275).

This research project does not address the PLA's actual IW capabilities; however, that is a worthwhile topic for future study.

An additional limitation on this study is that it only peripherally discusses Psychological Operations (PSYOP) due to the lack of FBIS translations of articles pertaining to PSYOP published in *China Military Science*.

Literature Review

Alastair Iain Johnston's: "Cultural Realism: Strategic Culture and Grand Strategy in Chinese History" was one source of Chinese strategic culture theory. Johnston is a well-known respected theorist with regard to Chinese strategic culture and strategic culture. He takes a cultural realist approach and concludes that China will resort to offensive force to deal with threats to its national interest when it estimates that it has a favorable force ratio. He asserts that China will resort to a strategy of appeasement when it does not. In "Chinese Strategic Culture: Traditional and Present Features," Tiejun Zhang, a native Chinese scholar, takes the approach of cultural moralism to present a

contrary view. He asserts that China does not view the international security environment as a “zero-sum” game and thus pursues national security by building national strength. A third source, Andrew Scobell’s “China and Strategic Culture,” shares Johnston’s cultural realist approach and heavily relies on his work. Johnston’s and Zhang’s works were selected as a primary sources of Chinese strategic culture theory. Both share similar views about aspects of Chinese strategic culture but disagree as to which aspects dominate Chinese decisions to use force. Johnston’s Western bias allowed him to take a more pragmatic view of Chinese security decisions at the expense of consideration of the cultural influences, while Zhang’s Eastern bias seemed to cause him to more heavily consider culture at the expense of pragmatism.

Scobell’s viewpoint relied heavily upon Johnston’s theories and appears to share Johnston’s bias. Though not as comprehensive as Johnston’s work, Scobell’s article was valuable because it further developed ideas that Johnston had not fully explored in his work. For example, he presents the idea that China’s active defense strategy combined with its definition of a just war makes China willing to use offensive force outside its borders once a just war criteria is met.

Johnston himself points out Westerners and Asians tend to take two different approaches when examining China’s strategic choices. Westerners tend to emphasize the *realpolitik* influences, while Asians tend to emphasize the cultural, Confucian-Mencian aspect. As a Westerner, Johnston’s bias causes him to see Chinese choices to use force as aggressive. As an Asian, Zhang tends to see China a purely unwilling to use force, and more apt to focus its energies upon building national strength, or Comprehensive

National Power. These biases were considered when evaluating their conclusions for later incorporation into a comprehensive model to describe Chinese strategic culture.

China's Defense White Paper, "China National Defense in 2002," published in December of 2002, was the primary source of China's publicly stated national defense goals and policies. Key themes throughout the document include China's view of itself as a defensive nation, its desire to seize all the opportunities that the Information Age offers, and the integrated nature of society and the military. The People's War concept remains, at least on paper.

Michael Pillsbury's "China Debates the Future Security Environment" was an important source of information about China's military culture, and the strategies and doctrines it uses to address threats to its national security. It was the key source of information about the relationship between the RMA, Local Wars Under High-Tech Conditions, and People's War schools of thought; and how they are reflected in the PLA's organizational structure.

Both American and Chinese sources were used to define Information Warfare from Chinese and American perspectives to determine similarities and differences in thought. Joint Publication (JP) 3-13, "Joint Doctrine for Information Operations," and Army Field Manual (FM) 100-6, "Information Warfare," defined IW from an American perspective. Defining IW from a Chinese perspective is slightly more difficult because to date, the Chinese have not published an IW doctrine. Therefore, several sources were relied upon to construct a definition of IW from the Chinese perspective.

James Mulvenon's "The PLA and Information Warfare" was a valuable source of basic definitions of IW from the Chinese perspective. In this study, Mulvenon surveyed

Chinese IW literature from its inception in 1986 through 1999. He provided insight into how the Chinese first looked to other countries for ideas in developing views of information operations, and how much of the Chinese' early IW writings reflected heavy foreign influence: "it is clear that the PLA has translated both FM-100-6, *Information Operations*, and JP 3-13.1, *Joint Doctrine for Command and Control Warfare* . . . though it is rare that doctrine is adopted wholesale" (Mulvenon 1999, 181).

Mulvenon's study also asked the important question: "is there a(n) (indigenous) Chinese IW strategy?" Recent Chinese IW literature still appears to contain vestiges of foreign influence, but it also shows that the Chinese recognize the need and the desire to develop an indigenous Chinese IW capability with Chinese characteristics. It also shows a willingness to think pragmatically about IW, and that they are not necessarily "wedded" to Maoist thought, though they are looking for a place for Mao in the conduct of IW.

A survey of IW literature in *China Military Science* from 2000 to January 2003 provided further information on how the Chinese define IW. Just from the table of contents, one can ascertain that the Chinese generally classify IW into two major forms: Psychological operations and Integrated Electronic Attack and Network Warfare, which diverges from the US definition which gives equal weight to the six forms of IW: psychological operations (PSYOP), operational security (OPSEC), military deception, physical destruction, electronic attack, and computer network attack. Of the eight articles pertaining to information operations (IO) published in *China Military Science* from 2000 through December 2002, four pertained directly to PSYOP, two pertained to IO in general, and one pertained specifically to network and electronic warfare.

Table 1. IW Topics--*China Military Science*, 2000-January 2003

<p>China Military Science, No 4, 2002, Vol 13-3</p> <ol style="list-style-type: none"> 1. Dai Qingmin “Innovating and Developing Views of Information Operations” 2. Niu Li, Li Jiangzhou, Xu Dehui, “Planning and Application of Strategies of Information Operations in High-Tech Local War” <p>China Military Science, No 2 2002, Vol 15-2</p> <ol style="list-style-type: none"> 1. Dai Qingmin, “On Integrating Network Warfare and Electronic Warfare” <p>China Military Science, No 4 2001, Vol 14-4</p> <ol style="list-style-type: none"> 1. Xu Hezhen “Psychological Operations in the Context of Grand Strategy”; 2. Wang Zhenxing, Du Bo, Yang Suping’s “ The Rules of Psychological Operations Revealed by the Psychological Operations in Ancient Times” <p>China Military Science, No 5, 2001, Vol 14-5</p> <ol style="list-style-type: none"> 1. Wu Juncang and Zhang Qian Cheng “The Doctrine of Psychological Operations in Ancient China” <p>China Military Science, No 6, 2000, Vol 13-3</p> <ol style="list-style-type: none"> 1. Wang Zhengxing, Yang Suping, “On Psychological Warfare in Recent High-tech Local Wars”

It is interesting to note that of the four articles pertaining directly to PSYOP, two addressed PSYOP in ancient times. One addressed PSYOP in the High-Tech Local War scenario, while one addressed PSYOP in the context of grand strategy. None appear to address PSYOP’s role in the context of the RMA. One major limitation to this study was that FBIS translations to English were available only for the articles pertaining to Information Operations and Integrated Network Warfare and Electronic Warfare. Translations were not available the articles pertaining to PSYOP. Due to time constraints, an in-depth study of their content was possible for this research project.

Study of articles pertaining to China’s general view of IO revealed both commonalities and differences between US and Chinese views on IW, which will be revealed in more detail in Chapter 3.

Articles pertaining to the RMA published in *China Military Science* from 2000 through December 2002 were also a source of information on the PLA's perspective of IW in the context of informationalization and modernization. Senior Colonel Wang Baocun of the PLA's Academy of Military Science usually writes these articles in English rather than Chinese, which raises an interesting question. Why does the PLA go through the trouble to publish its intended course of modernization in English? Is it a deterrent measure, intended to broadcast Chinese intent to acquire systems that will someday compete with that of any potential adversary? Or is it a psychological operation, intended to publish a false intent to hide the true state of Chinese capabilities?

When studying English translations of *Foreign Broadcast Information Service* (FBIS) reports, there are some difficulties in determining the true meaning of certain words. When possible, the author referred to articles in the original language.

¹With regard to the RMA, MG Wang asserts that the information revolution has begun another RMA. He acknowledges that the PLA, and any military that has begun to integrate the use of information technology into its warfighting capability, is in the midst of an RMA.

“We argue that the crux of the contemporary RMA is to informationalize the military, i.e., to change the mechanized military of an industrial society into the informationalized military of an information society. The process of military informationalization is infact the RMA currently underway. From this definition, we can infer that as long as the military of a country has begun to informationalize itself, the RMA is proceeding in that country. According to this perspective, whether or not we admit it, the PLA of China has already taken the road of the RMA “ (Wang, 2001, 154).

²The original saying, borrowed from Chairman Mao, reads “cutting the feet to fit the shoes.”

CHAPTER 2

CHINESE STRATEGIC CULTURE

Introduction.

In its 2002 Defense White Paper, China states it has “consistently pursued a national defense policy that is defensive in nature” (*China National Defense* in 2002, 4). However, it is clear that since 1949, China has used force offensively in several armed military conflicts. A survey of strategic culture literature, as well as literature associated with Chinese military thought pertaining to People’s War, High-Tech Local War, and the RMA reveals that that China is willing to use offensive force if it assesses it has adequate force to address the threat (Johnson 1998, 257). In cases where China has adequate force, the strategy of the active defense is China’s means to address threats on its periphery. In cases where China does not have adequate military power to achieve its objectives, it will resort to a defensive posture and negotiation, (appeasement) (Johnston 1998, 63). Other considerations, such as whether the war is just, also weigh heavily in China’s decision to use force.

So how does a country that classifies its national defense policy as defensive in nature justify offensive actions in pursuit of its interest? The answer to this question lies in China’s strategic culture. Under certain conditions, factors in China’s strategic culture make use of force acceptable.

Chinese Strategic Culture

Alastair Iain Johnston’s “Cultural Realism: Strategic Culture and Grand Strategy,” Andrew Scobell’s “China and Strategic Culture,” and Tiejun Zhang’s “Chinese

Strategic Culture” were used to define Chinese strategic culture. Each author used slightly different terminology, but all defined China’s strategic culture as having two aspects which interact to influence a nation’s decision to use force to address threats to its interests. For the purpose of this thesis, those aspects will be generally classified as cultural and political. Specific terminology will be used when discussing an author’s work in detail.

Cultural Aspect of Strategic Culture

All three theorists Johnston, Scobell, and Zhang name the cultural aspect differently: Johnston, the *cultural* aspect; Scobell, the *Confucian-Mencian* aspect; and Zhang, the *traditional* aspect. They all generally agree on the cultural aspect’s origin and that it appears to be pacifist in nature. This pacifism finds its origin in China’s Confucian-Mencian heritage, which abhors war, and prefers reason and negotiation over conflict.

Confucians, in general, opposed the offensive or excessive use of force against external enemies for the reason that the very application of this force undermines the authority and legitimacy of the whole imperial order. (Zhang, 2002, 76)

In the Daoist and Confucian ethical systems, “[war] should be taken only as a last resort, and only in a just cause. This generally means defensive war, but can also mean punitive war to stop the strong from bullying the weak. (Johnston, 1998, 64)

Zhang mentions the tributary system and intermarriage as other non-violent means of conflict resolution that also sprang from the Confucian system. In Imperial China, tributary relations with the periphery allowed China to cope with barbarians without resorting to coercive methods (Zhang, 2002, 76). The heartland, China, offered economic favor in exchange for tribute rendered. China also mitigated barbarian threats

on the periphery by establishing familial relationships through a formal policy of *heqin*, or intermarriage.

Johnston also presents the conclusions of ancient Chinese military scholars, retired Guomindang Generals Wei Rulin and Liu Zhongping, to assert that China's agrarian origins may have also influenced evolution of a defensive cultural aspect. "Chinese culture stressed self-protection by means of walls, earthworks, and strategic strongpoints rather than invasion, a predisposition rooted in the security imperatives of a sedentary agricultural society" (Johnston, 1998, 65).

All of these factors comprise the pacifist cultural aspect of China's strategic culture.

Political Aspect of Strategic Culture

Johnston, Scobell, and Zhang diverge in their definition of the political aspect of Chinese strategic culture and its relationship to the cultural aspect. They also diverge in their views of why China resorts to offensive force. Johnston states that China will use force when its perceived strength exceeds the adversary's. Scobell uses a combination of just war and active defense doctrine. Zhang's conclusion leads the reader to believe that China will not use offensive force to deal with security threats. In pursuit of security, focuses upon building national strength in the form of CNP.

Alastair Iain Johnston calls the political aspect the *parabellum* paradigm. "Chinese strategic thought shares many of the same assumptions as *parabellum* or hard *realpolitik* worldviews found in some variants of Western realism. That is, warfare is viewed as a relatively constant element in human interaction, stakes in conflicts with the

adversary are viewed in zero-sum terms, and pure violence is highly efficacious for dealing with threats that the enemy is predisposed to make” (Johnston, 1998, 30).

He developed this paradigm through a survey of seven Chinese ancient military classics from the Ming dynasty.¹ Two of his conclusions are particularly interesting. First, that the ‘*parabellum*’ paradigm at the core of the military classics stands in contrast with the standard image of Chinese strategic thought found in much of the secondary literature . . . that . . . is soaked with the notion that in Chinese strategic thought, war was a ‘last resort’ (Johnston 1998, 61). Second, the concept of accommodation, rather than pacifism, explains the Chinese choice to avoid use of force. “Accommodation was a contingent means to an end; it was an option that only made sense, according to its proponents, when the Ming was incapable of effectively using defensive or offensive means to defeat the adversary militarily” (Johnston 1998, 230). Accommodation was a means for the Ming to extract himself from a conflict and prepare for combat at a more favorable time under more favorable circumstances. Such a tactic remains relevant today. In his article “Emphasis on Strategy: Demonstrating the Culture of Eastern Military Studies,” PLA General Li Binyan recalls SunZi’s adage that: “The best strategy is to win without fighting” and stresses that the Chinese focus on the entire war rather than one battle. “In one military confrontation, it is not enough to want to win one battle. It is more important to think about whether or not this will help to win the war” (Li 2002, 7).

Interestingly, the pacifist leanings of the Confucian-Mencian ethic which abhor war offer a convenient “cover story” for withdrawal or a choice to not use force to address a security issue that is both face-saving and intent-concealing. A public, peace-loving

statement can serve as an information operation to divert attention from weakness. It can conceal the intent to use the withdrawal as an opportunity to mass forces to fight on a more favorable day. This has application at the highest strategic as well as lowest tactical levels. As an example, the Taiwan issue, the policy of “peaceful reunification” may be a “cover story” for the reality that the PLA does not have the military capability to decisively enforce “nonpeaceful reunification,” or that it is unwilling to accept the economic devastation to its own economy which would result from such a destructive scenario.

Johnston predicts that when China perceives its interests threatened in future situations, it will resort to force if it concludes it has the ability to defeat the threat and achieve its objectives. He relies on historical examples to prove his point: “Post-1949 China’s use of force in a crisis appears to have been related to improved relative capabilities, again consistent with a *parabellum* strategic culture. In all three foreign policy crises with the U.S. in which China used violence (Korea, Quemoy-Matsu 1954-1955, Quemoy-Matsu 1958), the U.S.-P.R.C. power ratio shifted in China’s direction over the previous year . . . in other words, when in a crisis, China tended to act in a more conflictual manner as it grew relatively stronger” (Johnston 1998, 257).

Andrew Scobell calls the political aspect the *realpolitik* aspect. It is one which favors military solutions and is offensive oriented. In his model, both the cultural and *realpolitik* aspects are “operative and influence and combine in a dialective fashion to form the ‘Chinese Cult of Defense.’ This cult paradoxically tends to dispose Chinese leaders to pursue offensive military operations as the primary alternative in pursuit of

national goals, while rationalizing these actions as being purely defensive and the last resort” (Scobell 2002, v).

Tiejun Zhang calls the political aspect the *present* aspect. He asserts that factors influencing China’s present strategic culture include the legacy of the humiliation of the early modern era, China’s past hierarchal relations with the outside world, and in particular, China’s pursuit of Comprehensive National Power (CNP). The combination of present and traditional aspects results in China’s “defensive realist” strategy in which the pursuit of material strength influences policy decisions more than cultural aspects. He paints a China that refrains from using force not because of moral or cultural reasons, but because it is in its best interest to focus upon building national strength. Though Zhang does not say so, he implies that increased security will result from strength. He also asserts that pursuit of security is not a “zero-sum” game. He quotes Sean M. Lynn-Jones to explain. “The international system does not necessarily generate intense conflict and war. States that understand the international system will realize that security is often plentiful and that defensive strategies are the best route to security . . . defensive realism retains the customary realist emphasis on the primacy of the states” (Zhang 2002,87). Zhang criticizes Johnston’s approach to Strategic Culture in several areas, but his own argument has weaknesses because it downplays China’s involvement in several conflicts since 1949. If one were to read his article without any knowledge of China, one would conclude that China has not been involved in an armed conflict since 1949. He discusses *relations* on the periphery, he fails to mention *conflicts* on the periphery.

Just Wars

Johnston, Zhang, and Scobell present information which indicates they appear to share similar views as to how the Chinese define just wars, but Scobell provides the most clear modern definition. According to him, the Chinese define just wars as defensive, anti-hegemonic, or those deemed to help maintain stability and national unity. Johnston asserts that ancient literature is full of references to using military force to punish the unrighteous, suppressing rebellions, and punishing the violent or cruel” (Johnston 1998, 69). He includes examples of what would constitute “cruel, violent, rebellious, or unrighteous behavior” (Johnston 1998,69). Examples of righteous wars which would deserve punishment include: “. . . a ruler: bullying weaker states . . . bullying his own people. . . being violent internally. . . and insulting other states externally. . . neglecting agriculture. . . killing one’s own people . . . and disregarding the regularities of heaven, earth, and humankind. . . behaving like a wild animal . . . and rebellion against the established political and social order” (Johnston 1998, 69).² In the face of such bad behavior, righteous wars “restore the correct order of things, people, and policies” (Johnston 1998,70).

Zhang never clearly defines just war, but quotes several Chinese scholars to assert that the Chinese strategic culture is embedded with the idea that unjustified wars are doomed to failure and that ethical constraints exercise the greatest influence over Chinese decisions to use force (Zhang 2002,80). He states Chinese strategic culture emphasizes conflict avoidance over force to resolve security issues. Additionally, he emphasizes the Chinese tendency to avoid use of force to assert that the Chinese consider engagement all

along the spectrum of CNP: seeing not only military, but political, diplomatic, and economic sources of power to as means to subdue the enemy (Zhang 2002, 80).

Strategy of the Active Defense

Zhang outlines an excellent history of the evolution of the active defense. From a Chinese perspective, China's exploitation at the hands of colonial powers resulted from the strategy of the passive defense. According to Zhang, "the term of active defense was first proposed by Mao Zedong in the revolutionary era" (Zhang 2002, 85). From 1949 through the late 1970s, "the focus was upon defeating enemy forces within Chinese territory by means of the 'People's War'" but "the current version of it stresses the need to 'stop the enemy on China's borders' (*ju di yu guo men zhi wai*)" (Zhang 2002, 80)³ Zhang asserts that in the modern era, the passive defense is no longer effective to protect interests which extend beyond the periphery of China's borders, and requires a seemingly aggressive strategy, the active defense. However, he couches his assertion in the idea that Chinese capabilities only allow such a strategy to be defensive in nature.

In the modern era, passive defense is no longer effective in protecting a country's territory integration and other related national interest, such as the safety of sea lanes, etc. In China's case, while its industrial centers are mainly along the coastlines, it now simply cannot afford to maintain passive defense as the imperial China did. The defensive nature of the present Chinese security strategy is exemplified not only by the worlds like 'counter-attacking and defeating the enemy after being attacked.' but also by deeds in China's military modernization. (Zhang 2002,86)

Zhang continues by pointing out that China's navy lacks the required capability to challenge countries such United States through power projection. Due to China's concentration on building CNP, will not have such a capability in the foreseeable future.

It is here that Zhang's bias appears to influence his perspective with regard to Chinese use of offensive force. In his discussion of the active defense, he fails to mention that the objective of stopping the enemy before it enters Chinese territory appears to justify invading to engage the enemy on his own soil. An example of such an activity is the PLA invasion of Vietnam in 1980.

Scobell asserts that the strategy of the active defense, the Chinese definition of just war, and the Confucian idea that just wars are sometimes necessary result in a nation that is quite willing to use offensive force once it finds a reason that fits into its just war paradigm. According to him, the Chinese modern assessment of a just war is defensive, one fought to preserve national unity, or any war that opposes hegemony or hegemonic powers.

Current Military Culture and Schools of Thought--People's War, Local War Under High-Tech Conditions, and RMA

Currently, China has three major schools of thought that have different visions about the cause and nature of China's next conflict. They are the People's War, the Local War Under High Tech Conditions, and the RMA schools of thought.

According to Michael Pillsbury, a People's War Scenario will occur only if a major power, such as Japan, Russia, or the United States, invades China. This war's prolonged nature would allow China to mobilize its industrial base and arm the people to expel the invader (Pillsbury 2000, 261). The Maoist school of thought preaches "the use of the inferior to overcome the superior", and its success is highly dependent upon use of stratagem and deception (Pillsbury 2000, 272). The Maoist school of military thought is

the oldest of the three, but military journals refer to the People's War scenario much less often than to that of the Local War Under High-Tech Conditions.

A Local War is the conflict scenario which the PLA generally sees as the next most likely. It would occur on China's periphery with one of China's neighbors, rather than with an invading, hegemonic superpower. Deng Xiaoping's writings contain the theory that justifies this school. "Local war is understood to be a limited war on the periphery of China that would be short but intense, utilizing advanced technology weapons, with units fighting in a joint and combined arms effort. It envisions an element of force projection . . . but by definition is regional, not global" (Pillsbury 2000, 273).

China will rely upon rapid reaction forces to quickly defeat the invasion (Pillsbury 2000, 262). Authors of the local war envision such a scenario as something smaller than a world war and "frequently cite a speech by Deng Xiaoping to the Central Military Commission in 1985 to explain the origins of the concept. Deng's speech flatly decreed that the world would not be seeing a global war or a major nuclear war for a "long time to come" (Pillsbury 2000, 262). China regards the Local War as the next most likely scenario, and often cites the 1991 Gulf War as an example of a Local War, rather than a global one (Pillsbury 2000, 274).

According to Pillsbury, the RMA school began in 1994, and interest in it grew sharply after the NATO bombing campaign in Serbia in 1999. "Its proponents include several generals who occupy (or are recently retired from) high positions in China's most influential military institutions. This third school of thought recommends that China prepare for future warfare along the lines of concepts first discussed by Russian and

American authors who forecast a potential revolution in military affairs” (Pillsbury 2000, 263-264).

The RMA school envisions that the next war’s opponent will be perhaps the US, Russia, or Japan. In such a scenario, China will attack the enemy’s C3I, network forces, use computer viruses, anti-satellite weapons, pre-empt enemy attacks, and use forces to prevent a logistics buildup (Pillsbury 2000, 263).

The threats that these schools represent as well as the different capabilities they require present a dilemma for China. “With a limited budget, it is hard to prepare for all three types of future warfare” (Pillsbury 2000, 265). Additionally, Pillsbury observes that they are represented in different organizations within the PLA. Proponents of the RMA

[who tend to be senior colonels and a few major generals] seem to be employed by the Academy of Military Science (AMS) or the large components of the Commission on Science, Technology and Industry for National Defense (COSTIND) complex, such as China Aerospace Corporation and its research institutes like the Beijing Institute of System Engineering (Pillsbury 2000, 268).

Local War proponents

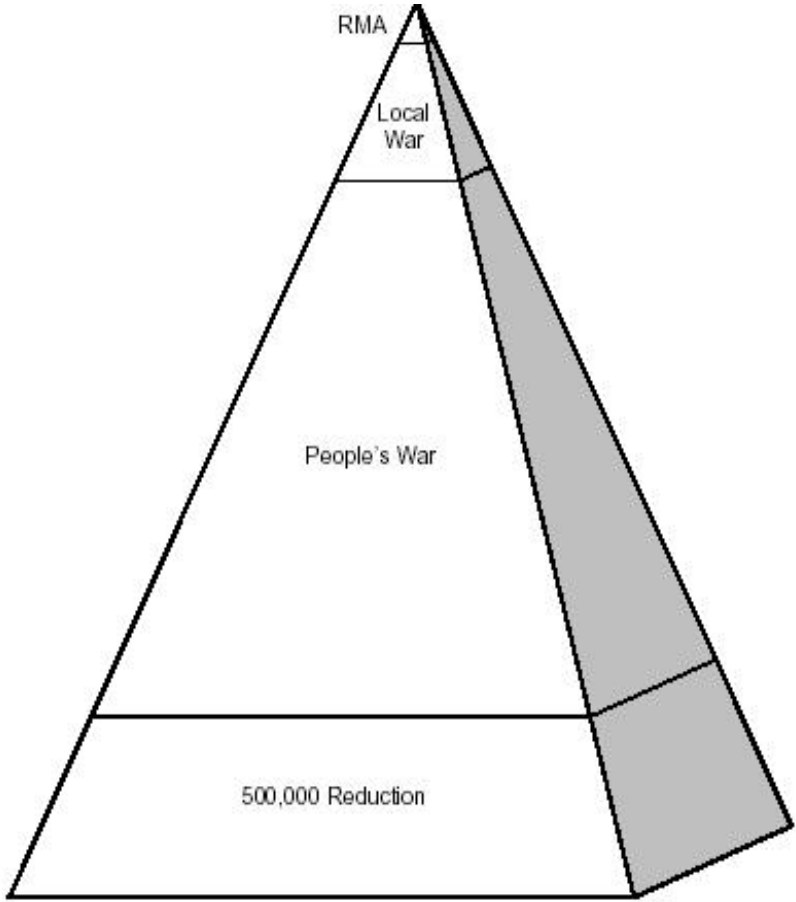
occupy most of the highest positions of the PLA and are also employed at the NDU, which trains almost all future generals (Pillsbury 2000, 268).

People’s War school

seem to be senior party officials, members of the General Political Department, and senior militia and People’s Armed Police (PAP) leaders (Pillsbury 2000, 268).

Pillsbury uses Dennis Blasko’s (former assistant Army Attache in Beijing) model (figure 1) to illustrate that about 80 percent of the PLA is best suited to fight a People’s War; about 15 percent is best suited to fight a Local War under High-Tech Conditions,

and only a very small part of the PLA is dedicated to the RMA (Pillsbury 2000, 269-275). Blasko's model also reflects that this organizational structure exists in the context of a reduction in forces meant to facilitate modernization, reorganization, and reform.



Figure—Pyramid

Figure 1. Blasko's Triangle (Blasko 1999, 261)

Conclusion

Based on a survey of Chinese strategic culture literature and military literature, several major facets of Chinese strategic culture may be relevant to the development of a Chinese IW capability. They are summarized in Table 2 and are further discussed in the following paragraphs.

Table 2. Key Facets of Chinese Strategic Culture
1. Perception of its strategy as defensive - Confucian-Mencian heritage
2. Just war theory – anti-hegemonic, defensive, national unity
3. Strategy of the active defense - preemption
4. Relationship between the use of offensive force, force ratio, and appeasement
5. Building CNP, national strength, to assure security.
6. RMA school of thought most relevant, but People’s War still dominates

1. China perceives itself as a defensive country. “China National Defense in 2002” is full of references to itself as such. Johnston, Zhang, and Scobell all would agree that its Confucian-Mencian heritage at the very least discourages use of armed conflict in pursuit of national interest. However, in some cases, just wars should be fought.

2. China defines a just war as any war that is defensive, anti-hegemonic, or fought to preserve national unity. China’s just war philosophy finds its roots in its Confucian heritage. Present sources of the just war philosophy include the colonial period when China was a victim of exploitation and hegemony.

3. In theory, the strategy of the active defense involves stopping potential threats along China’s borders. In practice, it involves use of offensive force beyond China’s borders to eliminate threats. The PLA’s invasion of Vietnam is an example of the transition from theory to practice. The active defense is similar to the West’s idea of pre-emption. According to Scobell, such a strategy, combined with its just war definition

causes China to be a country which is quite willing to use offensive force once it finds a reason to justify its use. This may be the only way that China can describe itself as “defensive” and continue to use force. (See #1)

4. According to Johnston, whenever China assesses that it has a force advantage over an adversary, it will use offensive force to address threats to its interests. When it does not, it will use the strategy of appeasement to allow it to withdraw in order to seek more favorable circumstances at a later date.

5. According to Zhang, China pursues a strategy of building CNP, or national strength, out of an interest to protect itself from exploitation. This assertion does not necessarily rule out Johnston’s assertion (#4). Johnston’s and Zhang’s assertions are not necessarily mutually exclusive: Currently, as China assesses itself in a weak position and could be pursuing a strategy of appeasement to allow it to focus on building CNP. When China perceives itself at a favorable force ratio, it will be more likely to use offensive force to address threats to its security.

6. More than one school of military thought is currently present in Chinese military culture. It appears the one which addresses the next most likely conflict, that of the Local War Under High-Tech Conditions, has a minor representation in the PLA’s organizational structure in comparison to that of the People’s War. It is also interesting that People’s War scenario least describes the next most likely scenario from the Chinese point of view. China’s reform is attempting to address that discrepancy. Despite the fact that the People’s War scenario is the least likely, Mao’s line of thought remains alive and well in current PLA military writings. Given that some aspects of Mao’s thought may

not apply to the information age, it will be interesting to see if Mao's ideas will negatively or positively affect the development of a Chinese IW capability.

¹*Sun Zi Bing Fa, Wu Zi Bing Fa, Si Ma Fa, Wei Liao Zi, Tai Gong Liu Tao, Huang Shi Gong San Lue, and Tang Tai Zong Li Wei Gong Wen Dui.*

² Here, Johnston cites the work of several authors from which he derives his examples of righteous wars: Liu, 1955, Zeng, 1986, and Lin, 1986; Liu Yin, ed. and anno. (1955b) *Si Ma Fa zhi jie*, Taipei; Zeng Zhen, ed. and anno. (1986). *Tang Tai Zong Li Wei Gong Wen Dui jin zhu jin yi*. Taipei; and Lin Pinshi, ed. and anno. (1986). *Lu Shi Chun Qiu jin zhu jin ji*. Taipei.

³ Here, Zhang quotes Yan Xuetong, *Zhong guo Yu Yantai Anquan*, (China and the Asia-Pacific Security), Current Affairs Press, Beijing, 1999, p 31.

CHAPTER 3

CHINESE FUTURE VIEW OF INFORMATION WARFARE

Introduction

In order to explain the Chinese future view of IW, it is necessary first to define IW and key terms from both an American and Chinese perspective. It is also necessary to understand when why and how the Chinese began developing their IW doctrine to understand the direction Chinese IW doctrine will take in the future. To begin to understand where Chinese and American views of IW diverge, it is first important to understand that they share several common views.

What is Information Warfare?

Defining IW from an American perspective is not difficult. The US Military's Joint Publication 3-13 clearly defines Information Warfare as "information operations conducted during time of crisis or conflict to achieve or promote specific objectives over a specific adversary or adversaries" and Information Operations "actions taken to affect adversary information and information systems while defending one's own information and information systems" (Joint Publication 3-31 1998, GL7).

Defining IW from a Chinese perspective is difficult. To date, the Chinese have yet to publish IW doctrine, though PLA theorists write prolifically on the topic. They discuss its recent impact in the Gulf War and Kosovo and debate its future role in the PLA. For the most part, Chinese IW theorists' writings do appear to share a common vision of IW with the American view. In some cases, they even share terminology.

According to James Mulvenon's 1999 study, *The PLA and Information Warfare*, the first Chinese IW literature appeared in 1986. After observing the U.S.'s overwhelming success in Operation Desert Storm, the Chinese made an even greater effort to develop IW doctrine. In their early attempts to develop IW doctrine, they appear to have borrowed from and translated US, Russian, French and German doctrine. Among Mulvenon's conclusions was the assertion that the Chinese did not have an indigenous IW doctrine and were struggling to develop their own. In essence, his study drew upon literature in the field to define Chinese Information Warfare and showed that the Chinese definition of information warfare had few conflicts with the American perspective.

More recently SCOL Wang provided a definition of IW that seemed very close to the American definition. In "The Current Revolution in Military Affairs and its Impact on Asia-Pacific Security," SCOL Wang defines IW as:

a form of combat actions which attacks the information and information systems of the enemy while protecting the information and information systems of one's own side. The contents of information warfare are military security, military deception, physical attack, electronic warfare, psychological warfare and net warfare, and its basic purpose is to seize and maintain information dominance (Wang 2000, 139).

Which is strikingly similar to the American definition of IW which is defined as the

assigned and supporting capabilities and activities that can be integrated to conduct offensive information operations include the same capabilities and processes that traditionally support Command and Control Warfare — OPSEC, PSYOP, military deception, electronic warfare, and physical attack/destruction. CNA[computer network attack] may be considered for development and integration into offensive IO. (Joint Publication 3-13 1998, p II-3)

Table 3 highlights the striking similarity in terminology between the two definitions.

Table 3 - American and Chinese Forms of IW	
American	Chinese
OPSEC	Military Security
Military Deception	Military Deception
Physical Attack/Destruction	Physical Attack
Electronic Warfare	Electronic Warfare
PSYOP	Psychological Warfare
Computer Network Attack	Net Warfare

Though the Chinese and the US use many common terms, the Chinese use some that are found nowhere in US IW doctrinal field manuals. Among them are the terms “hard and soft fighting means,” “trump card,” and “stratagem” (Niu et al. 2000, 11).

“ Planning Strategies of Info Operations in High-Tech Local Wars” defines soft fighting means and hard fighting means. Soft fighting means refers to those attacks whose effects are felt but the delivery means are not visible. Soft attacks can either impede an adversary’s ability to process information or cause a commander to make the wrong decision (Niu et al. 2000, 11). They include but are not limited to tactics such as jamming, deception, impeding enemy information flow, computer virus attack, and network infiltration. Hard fighting means refers to causing physical destruction that would damage enemy information systems and networks (Niu et al. 2000, 11). An adversary may use munitions to conduct a hard attack, but a hard attack could also consist of using a military force to physically possess or destroy a C2 node. Major General (MG) Dai Qingmin, director of the 4th Department of the GSD, points out that although soft fighting means are applicable in more situations, their effect is not as great or lasting

as that of the hard fighting means. He recommends integrating hard and soft fighting means to maximize damage to the enemy's IW capability.

Webster's Dictionary defines a stratagem as "an artifice or trick in war for deceiving and outwitting the enemy." Chinese military classics such as SunZi's *The Art of War*, *The 36 Stratagems*, and even the military writings of Chairman Mao are full of reference of stratagem. The Chinese see themselves as resorting to superior strategy to solve tactical problems, while they view the West as resorting to superior technology to solve tactical problems.

Traditionally, Oriental people emphasize stratagems, and Occidental people emphasize technology. A main manifestation of this difference is that Occidental soldiers would seek technological means when encountering a difficulty, while Oriental soldiers would seek to use stratagems to make up for technological deficiencies without changing the technological conditions (Niu et al. 2000, 4).

Given its important place in Chinese military literature, it is not surprising that the use of stratagem has found its way to current Chinese IW theory. Yet in a technology-heavy field such as IW, can stratagem solve all the problems where there is a deficit of equipment and technology? As will be later discussed, the Chinese may or may not fall into this "stratagem trap."

The term "trump card" also often appears in Chinese IW literature. Though never directly defined in the English translations of Chinese IW articles, it appears to be a specific high-tech capability that a technologically inferior nation could develop that would focus on delivering devastating effects to a potential adversary's key vulnerability. Possession of a "trump card" does not ensure information superiority for the attacker, but it can deliver a blow to deny information superiority to its foe:

Though some high and new technological “trump cards” among arms and equipment for information operations are likely to play a significant role in information operations, since an enemy may possess a highly integrated information system capable of resisting a powerful information attack, an army armed with a single “trump card” among some powerful arms and equipment for information operations are still likely to find it hard to secure information superiority in most cases. (Dai 2000, 8)

What is the Chinese Vision of the Future Role of IW?

IW literature in recent issues of *China Military Science* indicates that the Chinese view of IW may be beginning to develop its own characteristics. That is due both to PLA theorists’ deliberate efforts to develop an indigenous doctrine and cultural influences.

Several new perspectives may become the theoretical foundation of the indigenous IW capability the Chinese seek to develop. Recent Chinese IW literature indicates that the doctrine of Integrated Network Attack and Electronic Attack (INAEA), an IW-specific active offense doctrine, an integrated defense-offense doctrine, and the use of stratagem combined with “trump cards” may be future foundations for a “uniquely Chinese” brand of IW (Dai 2000, 9). PLA IW theorists also continue to wrestle with the marriage between People’s War and IW and the use of stratagem.

Contrary to popular belief, the undertone of PLA IW writings indicate that the Chinese see may asymmetry as only a temporary solution until they can field and train a conventional force of superior capability. The Maoist maxim “using the inferior to defeat the superior” has great appeal to an army that cannot afford to build the conventional force it desires. However, the admiring assessment of US performance and capabilities, as well as the lists of capabilities the Chinese intend to develop indicates that the PLA covets the US superior IW capability.

IW With Chinese Characteristics: Integrated Network Attack and Electronic Attack (INAEA) capability, an IW-Specific Active Offense Doctrine, Trump Cards and Stratagem.

As Mulvenon established in his 1999 study, the Americans and Chinese appear to generally share a common vision of Command and Control Warfare. However, there are indications that the Chinese might have begun to refine their view of IW to one with “Chinese characteristics

Integrated Electronic and Network Attack

In his article “On Integrating Network Warfare and Electronic Warfare,” MG Dai Qinmin cites the six supporting IW capabilities and activities outlined in table 3, but asserts that only two, electronic warfare and computer network warfare, may fall under the purview of an indigenous Chinese IW capability. He states that IW

takes six forms: operational security, military deception, psychological warfare, electronic warfare, computer network warfare, and physical destruction. . . since ancient times, operational security, military deception, and information warfare have always been used in war, mainly as political, diplomatic, propaganda, and deception actions. As for physical destruction, this is widely used in various forms of combat operations. Electronic warfare and computer network warfare are the two measures with the most specific information operations characteristics. (Dai 2002, 112-117)

A review of the table of contents of issues of *China Military Science* provides further evidence that the Chinese view computer network and electronic warfare as separate from the four other forms of information warfare. It is also possible that the Chinese may view psychological operations as a separate discipline as well. Computer network warfare, electronic warfare, and psychological warfare are the only forms of IW that appear in article titles. The other three forms of IW that Dai mentions: OPSEC, military deception, and physical destruction; do not appear in article titles (see figure 1,

page 8). Just because they do not appear to be future “IW disciplines” does not mean that the principles of OPSEC, military deception, and physical destruction are not important to the Chinese. Use of these terms and application of their principles appear throughout IW literature as means of altering, controlling, protecting information, and impeding the enemy’s ability to do the same.

MG Dai devotes his entire article, “On Integrating Network Warfare and Electronic Warfare,” to describing the characteristics of integrated electronic warfare and network attack and asserts that “the ideology of integrated network-electronic warfare serves as information operations theory with Chinese characteristics” (Dai 2002, 6). In his article “Innovating and Developing Views on Information Operations” he states that

only by applying electronic fighting means and network fighting means at the same time and launching an integrated and comprehensive attack on a networked enemy information system will it be possible to effectively sabotage the enemy information system or information space; and reduce to a minimum the enemy hi-tech superiority based on information superiority. (Dai 2000, 4)

Active Offense: Addressing the Interdependence of the Defense and Offense

Dai’s observation of the integrated nature of the defense and offense as well as observations of the Iraqi defense during Desert Storm led him to advocate adopting an IW strategy of the “active offense.”

Dai asserts that “an information war is a war in which the principal offensive body is separate from the principal defensive body” (Dai 2000, 5). But he also asserts that “offensive information operations and defensive information operations are two inseparable aspects of an information war and it is wrong to stress one aspects at the expense of the other” (Dai 2000, 5).

MG Dai uses the Iraqi defense during Desert Storm to illustrate the interdependence of the IW defense and offense and how defender cedes the initiative to the attacker if he adheres to what he calls a “negative information defense tactic” (Dai 2000, 6). Failing to launch an “active” information offensive is what Dai calls adhering to a negative information defense tactic and leads to “being trampled upon” (Dai 2000, 6). He also cites the Kosovo War as an example of how a technologically inferior defender can “positively and actively” contend with a superior foe for information control through various methods of deception, camouflage, and evasion.

According to MG Dai the “active offensive . . . (is) . . . key to seizing information superiority . . . [and] . . . “seizing information superiority and maintaining information control are just one of the key characteristics of a future information war” (Dai 2000, 7). He advocates “positively and actively employing offensive information means and effectively sabotaging an information system an enemy heavily relies upon” to weaken him. He cites the US Army’s own admission that its information capability is both a source of strength and an exploitable vulnerability. One concrete example of how the PLA could employ such a strategy could include placing sophisticated decoys on the battlefield that would cause a sensor-reliant adversary to waste expensive munitions. Another might be to slow the adversary’s decision cycle, again through use of decoys, by forcing him to expend more collection assets than normally necessary to verify a target. A third would be to present a false signature/picture an adversary is expecting to see in order to divert attention from activities in another area.

Stratagem and Trump Cards

It appears strategy and the use of stratagem will continue to play a major role in Chinese IW. Stratagem, combined with trump cards, appears to have captured the imagination of the PLA's IW theorists. Discussion of use of stratagem and Information Warfare first occurred in MG Dai's 2000 article where he advocated "transforming some traditional strategies into new strategies with characteristics of the times" (Dai 2000, 9).

His idea was fully developed in the 20 August 2000 Issue of *China Military Science*. MG Niu Li, Colonel Li Jiangzhou, and Major Xu Dehui define information warfare 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. (Niu et al., 2000,1)

They identified "Trump cards" and strategic use of them as the key enabler that renders

an army without hi-tech superiority . . . capable of attacking an enemy's weak points by avoiding the enemy's strong points or evading a frontal or full-scale confrontation with the enemy. By mapping out and applying a sound strategy, an army without hi-tech superiority is capable of jamming or sabotaging an enemy's information or information system; sabotaging an enemy's overall information operational structure; weakening an enemy's information fighting capacity; and protecting its own information or information system at the same time. (Niu et al. 2000, 10)

In their article, the authors suggest over 20 potential information warfare stratagems as a means to reconcile traditional ways with new technologies. They urged the Chinese to achieve "organic combination of stratagems with technology" (Niu et al. 2000, 5) but acknowledge that "devising stratagems for information warfare is . . . different from other kinds of warfare" (Niu et al. 2000, 2). Their stratagems show how stratagem-thinking has entered IW debate. However, the stratagems themselves could

illustrate how the Chinese tend to emphasize theory over practicality – it contains few specifics on how the Chinese would actually execute such stratagems. Some are difficult for the Western mind to understand, as use of stratagem is not part of the Western tradition.

Aside from some that seem hypish to the Western mind, such as the "better designed" or "thinking-contest" stratagems, there are several stratagems that demand respect and attention.¹ Some of these stratagems, (i.e., thought-directing stratagems, using fictitious objects to hide the true picture, all-encompassing deception, and going with the flow), are based on the premise that the adversary is heavily dependent upon electronic sensors to gather intelligence. They involve using various means to present a false intelligence picture for the purpose of leading the adversary to make a poor decision based on false assumptions. No doubt, Chinese observations of successful Serbian deception efforts in Kosovo support the idea that such stratagems will be effective.

Some stratagems, such as "releasing viruses to muddy the flow," are believed to slow an adversary's ability to analyze and process his information, to interfere with or deny him information superiority or delay key decisions. Some of these stratagems, (i.e., intimidation through momentum building, prevailing over the enemy with extraordinary means, prevailing over the enemy with all-round strength) appear to contradict Mao's People's War concept, that of using the inferior to overcome the superior. Could these be an expression of the desire to have the capability to use the superior to overcome the inferior?

Mao's People's War

Mao's People's War remains a recurring theme in Chinese IW literature, but it appears that the Chinese are struggling with how to bring some of Mao's ideas in line with the times. One example of this is Wang Pufeng's² 1995 admission that

China's military, which has always advanced Marxist & Maoist warfare theory absolutely must not fall behind the times. We must use a practical combination of information warfare and Marxist and Maoist military thought to guide information warfare and issues in military construction . . . "Using the inferior to overcome the superior" is a tradition of China's military. However, "using the inferior to overcome the superior" in information warfare is definitely much different in content and form from the techniques of war used in the past. The question of how to conduct a people's war in information warfare also requires study. The people's war of the past was conducted in tangible space, but information warfare . . . is conducted even more in intangible space . . . There are many new issues here we need to explore. (Pillsbury 2000, 319)

Even in the 21st Century, Chinese IW theorists continue to struggle with how China will use the inferior to overcome the superior.

Conclusion

As previously discussed, the IW literature contained in China Military Science from 2000 through 2002 indicate several key facets of the Chinese future view of IW. They are summarized in Table 3.

Table 4 – Chinese Future Vision of IW
<ol style="list-style-type: none">1. Integrated nature of the defense and the offense2. Integrated Network and Electronic Warfare and PSYOP-- major disciplines3. Strategy of active offense due to ineffective nature of passive defense4. Use of stratagem and trump cards focus on delivering decisive blow to adversary's vulnerabilities5. Looking for a place for People's War theory

¹Thought-Directing Stratagems, Using Fictitious Objects to Hide the True Picture, All-Encompassing Deception, Going with the Flow, Releasing Viruses to Muddy the

Flow, Intimidation through Momentum Building, Prevailing Over the Enemy with
Extraordinary Means, Prevailing over the Enemy with All-Round Strength

² According to Michael Pillsbury, “General Wang Pufeng was the Deputy Director of the Strategy Research Department at the Academy of Military Science(AMS) in 1991.” Currently, he is one of five senior officers of the AMS in charge of the new doctoral program and “has been a prominent author on the RMA.” (Pillsbury 2000, 371)

CHAPTER 4

ANALYSIS

Relationship Between Key Elements of Strategic and Military Culture and Chinese IW Development

In chapters 2 and 3, the major facets of Chinese strategic culture and the PLA's future vision of IW are defined. In this chapter, the relationship between each key facet of Chinese strategic culture and the various aspects of the Chinese IW theorists' future vision of IW will be explored.

Key Facets of Chinese Strategic Culture	Chinese Future Vision of IW
<ul style="list-style-type: none">• Perception of its strategy as defensive - Confucian-Mencian heritage• Just war theory – anti-hegemonic, defensive, national unity• Strategy of the active defense - preemption• Relationship between the use of offensive force, force ratio, and appeasement• Building CNP, national strength, to assure security.• RMA school of thought most relevant, but Peoples' War still dominates	<ul style="list-style-type: none">• Integrated nature of the defense and the offense• Integrated Network and Electronic Warfare and PSYOP – major disciplines• Strategy of active offense due to ineffective nature of passive defense• Use of stratagem and trump cards focus on delivering decisive blow to adversary's vulnerabilities• Looking for a place for People's War theory

China's Self-Perception as a Defensive Country

China's image of itself does not necessarily discourage the creation of an offensive IW capability any more than it discourages the development of an offensive ground combat capability. Currently, the Chinese appear able to balance their perception of self as defensive with the strategy of the active defense, though the 1980 invasion of Vietnam proved that strategy now involves engaging threats on foreign soil before they can attack. Given the active defense's transition from a strategy which engaged threats after invasion to one that preempts threats on foreign soil prior to invasion it appears that there will be few ideological obstacles to implementing the active IW offense strategy MG Dai proposes.

MG Dai's assessment the static defense is ineffective and his recommended strategy of the active offense will force a change in thinking in Chinese military culture. In cyberspace, there is no equivalent to earthworks that Johnston cited as evidence of the cultural source of China's defensive nature. In order to effectively defend China's cyberspace, China will have to adapt an offensive IW strategy. However, it remains to be seen whether China will publicly announce such a strategy in its Defense White Paper. It also remains to be seen when, if ever, China would announce a change in strategy from the defense to the offense.

Just War Theory

Currently, the Chinese view anti-hegemonic wars, defensive wars, and wars fought to preserve national unity as just. Only time will tell if the Chinese will view intrusions into cyberspace as acts of war, and whether development of an IW capability will cause Chinese to alter their definition of "just war" to apply these principles to cyberspace, especially with regard to hegemony and defense.

From Dai's recommendation that China adapt the strategy of the active offense, it appears that he does not view incursions into another nation's cyberspace as an act of war, or that potential adversaries will see that as an act of war. Does this mean that in cyberspace, incursion does not necessarily mean invasion? It appears that that IW has raised, rather than lowered the threshold of hostile activity which can occur before a conventional response can be justified or is required. Will an incursion into cyberspace carry the same consequence as an airspace violation or a border incursion? Or will cyberspace evolve to a realm, like that of outer space, where world powers tacitly agree that enforcing and respecting borders and limits is not necessarily in their best interest? If China or other countries try to enforce a "border" around national cyberspace, (regardless of whether it is internationally recognized) will the day arrive when an IW incursion will justify a conventional war? Will the means of incursion dictate the appropriate level of response?

Active Defense

The PLA's strategy of the active defense will nurture the creation of the IW strategy of the active offense. The IW active offense strategy may in turn change Chinese strategic culture by allowing China's self-perception to change from that of a defensive country to an offensive one. Adoption of the active IW offense strategy may push China to adopt an active offense strategy on the ground

The intent for both the ground and IW strategies is the same--eliminating a potential threat before it can attack. With the strategy of the active defense, China used offensive force to engage an adversary when it moved too closely to its borders; with the IW strategy of the active offense, China must actively engage in offensive cyber

activities, which could involve physically eliminating their source outside China's borders. Pursuing such an IW active offense strategy could require China to alter its active defense strategy. It is possible, as with the 1980 invasion of Vietnam, that change will occur unaccompanied by warning that China is changing its active defense strategy. China will act, and will then use the strategy to justify its actions.

At first glance, the notion that China, or any country, would use physical force beyond its borders to eliminate a source of offensive IW activities appears implausible. However, if those activities cause devastating economic effects, or threaten governmental stability, then it is not so incredible after all.

Relationship Between the Use of Offensive Force and Force Ratio.

Johnston's assertion that China uses offensive force within a year of acquiring a capability equal or superior to an adversary implies a chilling possibility about Chinese strategic culture - capability, not morality (or just war theory) may be the true limiter on Chinese use of force.

If this is true, then any aggressive cyber activity upon the part of the Chinese or the PLA would indicate that they assess themselves as having a favorable force ratio in this realm. Perhaps it is here that China's emphasis on technical education has paid off, and the US (and US defense establishment's) reliance upon foreign technical experts has not. Though only a small percentage of China's population is computer-literate, that number still gives China an overwhelming ability to leverage the principle of mass against other, less-populous, and less technically literate nations.

The information revolution makes acquiring an offensive capability to wage cyberwar cheaper, so it is not unreasonable to conclude that in certain aspects of cyber

war, such as CNA (Computer Network Attack),¹ China already has a favorable force ratio. The information revolution has given China a relatively cheap means to engage distant adversaries without the expense of deployment, logistical worries, or public criticism (so long as the attack is not public). Beyond supplying a computer and power source, cyberwar's logistical requirements are few. A computer requires only a motivated operator but its maintenance and logistical requirements are few. It is relatively cheap to replace. From a stationary platform, a computer within China, it can project effects without the logistical tail that is vulnerable to partisan attacks, public criticism, hostile forces, the rigors of terrain and weather, or other risks.

RMA vs. People's War (Mao)

China, like every nation, must wrestle with the struggle between proponents of new and old theories. In its push to reform and modernize, the PLA must strike the balance between addressing new threats in addition to the old.

Will Mao move over for the RMA? Are his theories still relevant in the information age? Is there a place for an IW People's War theory? Will IW have to change to accommodate Mao, or will new quotes materialize to justify the doctrine that works best? Most likely, based on Chinese' pragmatic approach to assessing threats and developing a doctrine to address that (i.e., Local War & RMA schools of thought), Mao's legacy will not impede the development of IW. Indeed, many aspects of Mao are conducive to developing views on information operations. His emphasis on deception and theory application will most likely nurture the further development of IW with "Chinese characteristics."

When one speaks of a Chinese IW People's War, visions of 1.2 billion people conducting computer network attack against a future adversary are the easiest to create, but the least likely. Such a scenario is not plausible, practical, or possible. Firstly, China's population does not have the degree of access to the Internet or computer literacy that such a scenario would require. However, for the purpose of argument, two possible approaches to melding the People's War concept with the information age have been proposed. One is based on an incursion into Chinese cyberspace, and the other People's War with Wings.

In the past, using the strength of the people to defend China's territorial integrity was a key characteristic of People's War. According to a people's war scenario, the Chinese masses would mobilize and unite with the Red Army to defeat a invasion of the Chinese motherland. Under such a scenario, the people and military force would first fall back, providing little resistance. As the enemy penetrates deeper into Chinese territory, its lines would become more and more extended, making it subject to the people's strikes on its vulnerable assets. The people's presence throughout the region allows for superior intelligence, and allows for collection of intelligence related to the enemy's routes and activities. Such a scenario in cyberspace could unfold similarly, only, the computer and the Internet -- i.e., cyberspace, would define terrain. Only those Chinese who have computers could participate as the "people" to defend the homeland. The "people" could follow the same strategy of allowing incursion. When observing the incursion, they may watch the intruder and collect information (perhaps for years), in order to set conditions to strike at the right time.

Cyberspace can give the “people” “wings.” It gives them the ability to be offensive rather than defensive, to fight from within China, but to project effects outside of China. It has a far greater range than rakes, sickles, or rifles. In a war on physical terrain, China cannot mobilize the strength of the people unless an adversary invades. In cyberwar, if the people have access to a computer, they have the ability to project effects outside the physical territory of China. The information age will limit the number of people who can fight the “People’s War,” but that smaller number will have greater range and capability; they will be able to project effects beyond China’s borders. In such a scenario, future adversaries of China should look for some sort of government involvement in terms of resourcing and focusing the effort of the “People.”

¹Joint Publication 3-13 defines computer network attack (CNA) operations to disrupt, deny, degrade, or destroy information resident in computers and computer networks, or the computers and networks themselves. Also called CNA.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

What Will Change?

At the beginning of this research project, the original research question was “How will China’s strategic and military culture affect the development of an IW capability?” Such a question was based on the assumption that since the factors influencing China’s strategic culture were thousands of years old, they would be the dominant ones. Interestingly enough, it appears that the changes the information age brings have already changed Chinese strategic and military culture in some ways, and have the potential to change it further.

The greatest factors influencing this change are cyberspace’s boundless and borderless nature, the integrated nature of the defense and the offense, and the futility of a static Information Warfare (IW) defense. In order to meet these challenges, it appears that the PLA may develop the IW active offense strategy in order to meet requirements of self-defense.

Most of the active offense tactics MG Dai recommends occur in the digital realm, and are intended to force an enemy to “contend” for information superiority and information control. At what point does this strategy leave the digital realm and enter the concrete? The active IW offense could assume the form of using offensive force to eliminate a source of IW threat outside of China’s territory. In order to fulfil the requirements of the active offense and yet continue to claim to have a “defensive” strategy, China may expand its definition of the active defense to include addressing

sources of IW threats outside the periphery of China. Or, it could simply act when necessary to eliminate a source of IW threat beyond China's borders, and find a means to justify the action after the fact.

That said, in order to fight offensively, the Chinese may have to alter their definition of the defense. If China chooses to continue to view itself as a defensive country, it will have to expand its terminology to encompass those offensive cyber operations taken in the name of defense. Or, as the Chinese invasion of Vietnam showed in 1980, the terminology may remain the same, but the activity will change. i.e., China justified its invasion of Vietnam in 1980 using the strategy of the active defense; however, unlike before, it engaged an enemy outside its borders, before it mobilized to attack. Prior to that, the strategy of the active defense entailed engaging the enemy as it crossed China's frontier.

With the change in environment that cyberspace and IW presents, the Chinese could also choose to cease to define themselves as defensive. MG Wang's introduction of the active offense strategy could indicate a move in this direction, though it is difficult to tell whether his opinion represents the opinion of the PLA's decision makers, or only the elite 2 percent of the RMA school. Most importantly, does governmental leadership accept this line of thought?

If the active offense strategy is tolerated and embraced, the active offense strategy may indicate a major change in Chinese strategic and military culture. Perhaps, it will minimalize Confucian-Mencian influence on Chinese strategic decisions, resulting in a more overtly war-like China that willingly professes offensive plans. And of course, this prediction is meaningless without an estimated time of WHEN China would become so

overtly offensive. Johnston might assert that the Chinese will become overtly warlike once they have completed modernization and have a capability and the favorable force ratio to challenge the most capable adversary in the Pacific region. Zhang would probably disagree, resting upon his assertion that China will continue to avoid conflict in pursuit of increasing its CNP.

The definition of a just war may expand to include those offensive actions taken to protect Chinese cyberspace, with or without provocation. As MG Dai earlier stated, the passive defense in cyberspace cedes the initiative to the adversary. Thus, IW may also affect how the Chinese define just offensive actions. One approach could be to label any foreign incursion on Chinese cyberspace as “virtual hegemonism.” Aggressive cyber reconnaissance and counter-reconnaissance would be a necessary tactic to protect Chinese cyberspace and eliminating hegemony in cyberspace. One important question to consider is whether a cyber incursion will ever justify a military response with land, air, or sea based forces?

According to Johnston’s theory, any offensive Chinese offensive IW activities would indicate that in cyberspace, China already has a capability which it perceives itself on par with US cyber capability. For the future, this indicates that when China develops the remainder of its IW capability (that part which can target AWACs, jam GPS, etc.) it will use it.

When and Will China Acquire the Capability?

Yet for all of this discussion of Chinese strategic culture and Chinese future view of IW, it is only discussion of theoretical views, not practical capabilities. The scope of

this paper did not include research into known classified IW capabilities, yet it would be a valuable topic for future study.

It is true that the Chinese have a clear idea about the importance and the objectives of IW. What is not clear is whether they can develop, train, and equip an organization that is capable of doing what is contained in their theoretical writings.

Some would assert that it is not possible, citing multiple examples of past systems development failures. However, many things have changed in the last 20 years. The creation of the General Armament Department (GAD) in 1998, which replaced COSTIND, government funding of major research and development products, the multitude of Chinese who have gained work experience overseas, as well as an apparent openness to pragmatic ways of doing things may enable China to successfully develop and field systems that will give it the capability about which it speaks. Yet, as Li Bingyan's article indicates, that will require a conscious effort to change Chinese culture from one that reveres the theoretical to one that reveres technology.

Topics for Future Study

It would be a worthwhile study to examine whether the PLA will be able to develop the IW capability about which it speaks from a perspective of force development.

It would also be interesting to further study of the Chinese view of PSYOP's role in IW. Based on the titles of the articles pertaining to PSYOP published in *China Military Science*, as well as their it is difficult to tell what the Chinese view of PSYOP is with respect to the RMA.

Prescriptions for US Foreign Policy

Currently, the US has an unparalleled and unchallenged IW capability. Ironically, the same information revolution that has given the US this capability contributes as well to information and technology sharing as well. That degree of openness will most likely allow potential competitors to develop their IW capabilities at a lower cost. It is inevitable that they will do so, and there is little the US can do to prevent them from developing such a capability. In order to retain its advantage, the US must continue to aggressively pursue and perfect its IW capability. Whether dealing with China, or other countries, the United States cannot expect to retain its advantage without continuing to develop its capability.

When its economy has sufficiently developed, China will be able to shift its focus from economic development to obtaining the favorable force ratio that will allow it to challenge a world-class military capability. At that time, if peaceful unification with Taiwan has not occurred and China assesses that it can afford the economic blow conflict with Taiwan will cause, then the US can expect China to fulfill one other objective outlined in its 2002 Defense White Paper, that is “to stop separation and realize complete unification of the motherland” (China National Defense in 2002, 4)

Taiwan is an inalienable part of China. The Chinese government will, in keeping with the basic principles of “peaceful reunification” and “one country, two systems” and the eight point proposal on developing cross-Straits relations and advancing the process of peaceful national reunification at the present state, strive for prospects of peaceful reunification with the utmost sincerity and the maximum effort. But it will not forswear the use of force. . . China’s armed forces will unswervingly defend the country’s sovereignty and unity, and have the resolve as well as the capability to check any separatist act. (China National Defense in 2002, 4)

A sophisticated IW capability as well as a modernized military force will give China the ability to back up such a policy. The IW theory currently exists, but multiple other factors, such as world events, the economy, culture, force development, and training will determine whether and when China will obtain the capability that would make such a scenario possible.

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