

US Army War College  
USAWC Press

---

Monographs

---

7-1-2016

## Taking the Fight to the Enemy: Chinese Thinking about Long-Distance and Expeditionary Operations

Larry M. Wortzel Dr.

Follow this and additional works at: <https://press.armywarcollege.edu/monographs>

---

### Recommended Citation

Wortzel, Larry M. Dr., "Taking the Fight to the Enemy: Chinese Thinking about Long-Distance and Expeditionary Operations" (2016). *Monographs*. 301.  
<https://press.armywarcollege.edu/monographs/301>

This Book is brought to you for free and open access by USAWC Press. It has been accepted for inclusion in Monographs by an authorized administrator of USAWC Press.

*The*  
**Letort**  
*Papers*



TAKING THE FIGHT TO THE ENEMY:  
CHINESE THINKING ABOUT LONG-DISTANCE  
AND EXPEDITIONARY OPERATIONS

Larry M. Wortzel

Strategic Studies Institute  
U.S. Army War College, Carlisle, PA





# The United States Army War College

---

The United States Army War College educates and develops leaders for service at the strategic level while advancing knowledge in the global application of Landpower.

The purpose of the United States Army War College is to produce graduates who are skilled critical thinkers and complex problem solvers. Concurrently, it is our duty to the U.S. Army to also act as a “think factory” for commanders and civilian leaders at the strategic level worldwide and routinely engage in discourse and debate concerning the role of ground forces in achieving national security objectives.



The Strategic Studies Institute publishes national security and strategic research and analysis to influence policy debate and bridge the gap between military and academia.



The Center for Strategic Leadership contributes to the education of world class senior leaders, develops expert knowledge, and provides solutions to strategic Army issues affecting the national security community.



The Peacekeeping and Stability Operations Institute provides subject matter expertise, technical review, and writing expertise to agencies that develop stability operations concepts and doctrines.



The School of Strategic Landpower develops strategic leaders by providing a strong foundation of wisdom grounded in mastery of the profession of arms, and by serving as a crucible for educating future leaders in the analysis, evaluation, and refinement of professional expertise in war, strategy, operations, national security, resource management, and responsible command.



The U.S. Army Heritage and Education Center acquires, conserves, and exhibits historical materials for use to support the U.S. Army, educate an international audience, and honor Soldiers—past and present.



# STRATEGIC STUDIES INSTITUTE



The Strategic Studies Institute (SSI) is part of the U.S. Army War College and is the strategic-level study agent for issues related to national security and military strategy with emphasis on geostrategic analysis.

The mission of SSI is to use independent analysis to conduct strategic studies that develop policy recommendations on:

- Strategy, planning, and policy for joint and combined employment of military forces;
- Regional strategic appraisals;
- The nature of land warfare;
- Matters affecting the Army's future;
- The concepts, philosophy, and theory of strategy; and,
- Other issues of importance to the leadership of the Army.

Studies produced by civilian and military analysts concern topics having strategic implications for the Army, the Department of Defense, and the larger national security community.

In addition to its studies, SSI publishes special reports on topics of special or immediate interest. These include edited proceedings of conferences and topically oriented roundtables, expanded trip reports, and quick-reaction responses to senior Army leaders.

The Institute provides a valuable analytical capability within the Army to address strategic and other issues in support of Army participation in national security policy formulation.



**Strategic Studies Institute  
and  
U.S. Army War College Press**

**TAKING THE FIGHT TO THE ENEMY:  
CHINESE THINKING ABOUT LONG-DISTANCE  
AND EXPEDITIONARY OPERATIONS**

**Larry M. Wortzel**

**July 2016**

The views expressed in this report are those of the author and do not necessarily reflect the official policy or position of the Department of the Army, the Department of Defense, or the U.S. Government. Authors of Strategic Studies Institute (SSI) and U.S. Army War College (USAWC) Press publications enjoy full academic freedom, provided they do not disclose classified information, jeopardize operations security, or misrepresent official U.S. policy. Such academic freedom empowers them to offer new and sometimes controversial perspectives in the interest of furthering debate on key issues. This report is cleared for public release; distribution is unlimited.

\*\*\*\*\*

This publication is subject to Title 17, United States Code, Sections 101 and 105. It is in the public domain and may not be copyrighted.

\*\*\*\*\*

Comments pertaining to this report are invited and should be forwarded to: Director, Strategic Studies Institute and U.S. Army War College Press, U.S. Army War College, 47 Ashburn Drive, Carlisle, PA 17013-5010.

\*\*\*\*\*

All Strategic Studies Institute (SSI) and U.S. Army War College (USAWC) Press publications may be downloaded free of charge from the SSI website. Hard copies of certain reports may also be obtained free of charge while supplies last by placing an order on the SSI website. Check the website for availability. SSI publications may be quoted or reprinted in part or in full with permission and appropriate credit given to the U.S. Army Strategic Studies Institute and U.S. Army War College Press, U.S. Army War College, Carlisle, PA. Contact SSI by visiting our website at the following address: *www.StrategicStudiesInstitute.army.mil*.

\*\*\*\*\*

The Strategic Studies Institute and U.S. Army War College Press publishes a monthly email newsletter to update the national security community on the research of our analysts, recent and forthcoming publications, and upcoming conferences sponsored by the Institute. Each newsletter also provides a strategic commentary by one of our research analysts. If you are interested in receiving this newsletter, please subscribe on the SSI website at *www.StrategicStudiesInstitute.army.mil/newsletter*.

ISBN 1-58487-729-4

## FOREWORD

The Chinese People's Liberation Army (PLA) was once focused on China's immediate periphery. The PLA Navy had no "blue water" naval capabilities and very limited combat logistics support. The Air Force could not fly long-distance missions overwater or operate effectively in conjunction with the Navy or naval air forces; nor could it coordinate joint, precision strikes with the missiles of the Second Artillery. Land forces, meanwhile, could move effectively within China by rail, and could operate on China's periphery, but were neither capable of nor equipped for long-distance force projection.

Dr. Larry M. Wortzel's Letort Paper analyzes a body of literature that provides internal critiques of PLA capabilities. He starts with an analysis of the book *Long-Distance Operations*, by a strategist from the Academy of Military Science of the Chinese PLA, published in 2007. Although *Long-Distance Operations* was an aspirational book urging the military to "take the fight to the enemy" and hold an enemy's population and infrastructure at risk, as Wortzel points out in his analysis, other books of a similar genre in the PLA called for similar capabilities. His discussion calls for a more expeditionary PLA. He shows how, with new weapons systems, a series of major exercises, and new operational concepts, the PLA is evolving into an expeditionary armed force. These include: electronic warfare, space surveillance; improved command, control, communications, computers, intelligence, surveillance, and reconnaissance (C4ISR); and integrated ballistic and cruise missile operations. As Wortzel

shows, *Long-Distance Operations* called for capabilities to take the fight to a distant enemy's homeland and foreshadowed current PLA training and operational activities.

In Wortzel's view, the focus of *Long-Distance Operations* on expeditionary capabilities and operations is a response to the challenge of protecting the ever-expanding geographic interests of the Chinese state. Factors driving these changes include an evolution in the PLA's strategic and organizational culture as well as the availability of high-technology capabilities that influence the PLA's concepts for distance operations. At about the same time *Long-Distance Operations* was published, a number of other military thinkers at different institutions in China advocated similar forms of operations and the development of similar weapons systems, indicating common thinking in the PLA about future warfare. The fact that a number of institutions and authors deal with the same topics in the same time frame likely means that the publication of *Long-Distance Operations* and other books discussed in this Letort Paper reflected not only the aspirations of PLA strategists, but also the objectives of high-level PLA national leaders who saw a need for new forms of expeditionary operations. Indeed, in late-2015, changes in the PLA organization and force structure show that many of the critiques discussed by Wortzel foreshadowed changes that China's leaders wanted to bring about.

Over several years, the PLA has conducted a series of military exercises to improve capabilities, improve force projection, employ advanced intelligence and reconnaissance systems, and refine command and control. In December 2015 and January 2016, the Chinese Communist Party (CCP) Central Military Commis-

sion (CMC) changed the way intelligence and logistics for the PLA are organized and provided. The CMC also reorganized China's seven military regions into five theaters of war (sometimes translated as theaters of operation) with integrated joint staffs. The Second Artillery Corps was reorganized into the PLA Rocket Force; the logistics, intelligence, surveillance, reconnaissance, cyber and electronic warfare, and space control organizations have been reorganized into the Strategic Support Force; and the ground forces of the PLA were made a separate branch of the armed forces, the PLA Army. To facilitate command and control and strengthen the leadership of the CMC, the General Staff Department, the General Armaments Department, the General Political Department, and the General Logistics Department were disestablished, and their functions were moved into a reorganized CMC. Meanwhile, a new General Headquarters became part of the CMC.

Wortzel's analysis provides some of the rationale for these changes in the Chinese military. His use of doctrinal materials suggests that there is value in following the writings of PLA officers who are advocating new forms of weapons and operations. Although it is common for many policy analysts and scholars to dismiss such writings as "aspirational," they do, however, capture trends in PLA military operational development. Wortzel concludes that even if there is a gap in time between the publication of books with aspirational ideas and operational concepts, and the fielding of new weapons and forms of operations that put those concepts into effect, the research offers accu-

rate insights into future PLA operations and systems. Observers must compare the ideas in aspirational future studies to PLA exercises and training to determine which concepts are being put into practice.

A handwritten signature in black ink, reading "Douglas C. Lovelace, Jr." in a cursive script.

DOUGLAS C. LOVELACE, JR.  
Director  
Strategic Studies Institute and  
U.S. Army War College Press

## ABOUT THE AUTHOR

LARRY M. WORTZEL is a leading authority on China, Asia, and national security. He is a commissioner on the U.S.-China Economic and Security Review Commission. In 2015, he was appointed as an adjunct research professor at the U.S. Army War College. He is a retired U.S. Army colonel who spent much of his 32-year military career in the Asia-Pacific region. In 1970, he joined the U.S. Army after serving 3 years in the U.S. Marine Corps. He studied Mandarin Chinese and was assigned to the Army Security Agency. By 1973, he graduated from the Infantry Officer Candidate, Airborne, and Ranger Schools. After his infantry officer service, in 1978, he shifted back to military intelligence and served with the U.S. Pacific Command's intelligence center, the Office of the Secretary of Defense, and the Army Intelligence and Security Command. He was an assistant Army attaché from 1988 to 1990 and Army attaché from 1995 to 1997 in China. From 1997 to 1999, Dr. Wortzel was director of the Strategic Studies Institute at the U.S. Army War College, and a professor of Asian studies. He served as the director of the Asian Studies Center and vice president of foreign policy and defense studies at the Heritage Foundation. He has written or edited 11 books and many papers and journal articles about China, such as *Class in China: Stratification in a Classless Society*; *China's Military Modernization: International Implications*; *Dictionary of Contemporary Chinese Military History*; and his 2013 book, *The Dragon Extends its Reach: Chinese Military Power Goes Global*. Dr. Wortzel is a graduate of the U.S. Army War College and holds a Ph.D. from the University of Hawaii.



## SUMMARY

This Letort Paper analyzes *Long-Distance Operations*, a Chinese-language book published by the People's Liberation Army (PLA) Academy of Military Sciences (AMS) in 2007, as well as several other contemporaneous PLA publications. An assessment of this body of literature shows that *Long-Distance Operations* provides an internal critique by a PLA strategist of PLA operational and equipment deficiencies. Many of the capabilities, concepts for engaging an enemy, and forms of expeditionary operations called for in *Long-Distance Operations* have become operational doctrine in the PLA or have been reflected in weapons development programs since the book's publication. For instance, the PLA has made long-distance deployments with flotillas and expeditionary task groups, conducted long-range air operations, conducted exercises for long-distance ground force deployments, and used expeditionary forces for non-combatant evacuation operations.

At about the same time *Long-Distance Operations* was published, other Chinese military thinkers advocated for similar forms and concepts of operations, along with the development of similar weapons systems, indicating that these authors represent important currents of thinking in the PLA about future warfare. The publication of *Long-Distance Operations* and the other books discussed in this Letort Paper were aspirational. However, the publications appear to have followed calls from high-level PLA leaders for new forms and concepts of expeditionary operations, as well as new capabilities for undertaking them. Most notable, *Long-Distance Operations* called for capabilities to take the fight to a distant enemy's homeland.

The focus of *Long-Distance Operations* on expeditionary capabilities and operations may be seen as a response to the challenge of protecting the ever-expanding geographic interests of the Chinese state. Factors including the PLA's strategic and organizational culture as well as the availability of high-technology capabilities will influence the PLA's concepts for distance operations.

Thus far, the recommendations related to expeditionary operations have all been couched under the rubric of China's longstanding "active defense" strategy. As part of active defense, one of the key ideas advanced in *Long-Distance Operations* is the need to target an adversary's homeland and bring the threat to an enemy's civilian population.

This analysis suggests that there is value in tracking the writings of PLA officers who are advocating new weapons systems, forms of operations, and operational concepts. The research can offer leading indicators of, and context for, emerging PLA capabilities. Observers should compare the aspirational literature to actual PLA exercises and training to determine which concepts are being put into practice and at what rate.

Finally, it is important to realize that tracking the careers of individual Chinese military strategist-authors who participate in debates about future capabilities may be a useful window into the salience of particular currents of thought and the relative importance of particular domains of warfare as perceived by the PLA.

# TAKING THE FIGHT TO THE ENEMY: CHINESE THINKING ABOUT LONG-DISTANCE AND EXPEDITIONARY OPERATIONS

## INTRODUCTION

As a point of departure for additional research, this Letort Paper examines a 2007 book, *Long-Distance Operations* (远战), published by the Chinese People's Liberation Army (PLA) Academy of Military Science (AMS).<sup>1</sup> The book is noteworthy because it examines what the author, Jiang Yamin (蒋亚民), believes to be serious deficiencies in PLA capabilities that leave China's mainland and populace open to attacks by a "hegemonistic," advanced military power.<sup>2</sup> Jiang makes recommendations for the PLA to prepare and engage in military operations at far distances from China's immediate periphery and to develop the capability to engage a distant enemy. Jiang argues that the PLA needs to be able to engage enemies with long-distance and expeditionary operations at far distances from China's immediate shores and waters, as well as be able to threaten an enemy's civilian populace in the same ways that he believes China's populace is threatened.

This Letort Paper first provides background on Jiang and his *Long-Distance Operations* publication and then puts *Long-Distance Operations* into the context of other military publications of the time before examining Jiang's assessments of PLA weaknesses and vulnerabilities. After discussing Jiang's views on gaps and deficiencies in PLA military capabilities that leave the military and China's populace open to aggression by an advanced, expeditionary foreign military power, this Letort Paper reviews current military publica-

tions, exercises, and activities in the PLA to address the gaps that Jiang has identified. In the Conclusion, this Letort Paper assesses the PLA's progress in its operational capabilities to conduct long-distance and expeditionary operations.

## **BACKGROUND ON JIANG'S LONG-DISTANCE OPERATIONS**

At the time he wrote *Long-Distance Operations*, Jiang Yamin was a PLA senior colonel assigned as a researcher at the AMS (军事科学院), the PLA's pre-eminent military studies and strategy institution. The AMS works directly for the PLA General Staff Department and advises the Central Military Commission (CMC), the highest civil-military authority in the Chinese Communist Party (CCP) and China. Since the publication of the book, Jiang Yamin has been promoted to major general and at present, is the deputy director of the AMS Combat Theory and Regulations Research Department (作战理论和条令研究部).<sup>3</sup>

*Long-Distance Operations* was published 3 years after CMC Chairman Hu Jintao (胡锦涛) challenged the PLA to develop the capacity to protect China's developing international interests. Hu made this challenge in a December 24, 2004, speech to the CMC and PLA political commissars entitled "Historic Missions of the Armed Forces in the New Period of the New Century."<sup>4</sup> As a gauge of the PLA's reaction to the speech, in 2008, the PLA Navy sent its first task force to the Gulf of Aden as a response to a piracy attack on a Chinese ship.<sup>5</sup>

The view inside the PLA that China's military needed to be able to operate outside China's periphery developed over time. PLA strategists and military

thinkers studied the 1982 Falklands War between Britain and Argentina for lessons in modern warfare. PLA military thinkers learned the importance of air support for naval operations, forward basing for long-distance combat operations, and the effectiveness of submarines and anti-ship cruise missiles in maritime combat.<sup>6</sup> PLA military thinkers reinforced those lessons by observing U.S. operations in Iraq and Kosovo. PLA studies show a combination of envy, admiration, and fear of U.S. operational capabilities, attitudes reflected in Jiang's *Long-Distance Operations*.

Since publishing *Long-Distance Operations*, Jiang has raised his public profile and lectured in public fora on the use of gaming to prepare the PLA for operations.<sup>7</sup> Jiang also discussed the Chinese Internet, Internet security, and information operations at meetings in China.<sup>8</sup> At a 2011 meeting of China's gaming industry held in Beijing's Western Hills, where the AMS is located, Jiang discussed how gaming can help address civil-military integration and assist the PLA in addressing strategic issues.<sup>9</sup>

In writing *Long-Distance Operations*, Jiang attempted to establish himself as an innovator of new military concepts and terminology. Since 2004, the PLA has used the term "joint, integrated operations" ("联合一体作战") to describe how the military should ensure that all arms and services, as well as reserves, militia, and paramilitary forces, should be able to conduct operations in a coordinated manner across the domains of war.<sup>10</sup> Jiang also introduces the concept of "unified, collaborative operations" ("统一配合作战"). Although Jiang's attempt at a neologism did not catch on in the PLA, his conceptual framework is the same as the established PLA doctrine of joint, integrated opera-

tions.<sup>11</sup> In other areas, Jiang departs from the standard terminology in PLA doctrine. He suggests that training should be “pluralistic and integrated” (“多元集成化训练”) instead of using the PLA’s accepted doctrinal term “joint integrated training” (“联合一体训练”).<sup>12</sup> Jiang also insists that the PLA ensure that the proper strategy (谋略) is applied in a manner consistent with operational art (战法).<sup>13</sup>

*Long-Distance Operations* does not appear to have been reviewed or approved by an editorial writing group, as are formal doctrinal publications from the AMS. Thus, the book does not represent the collective judgment of the institution. Jiang’s ideas do have some authority in the sense that he holds a senior position at the AMS, which has published his work. However, the book should be viewed as Jiang’s attempt to capture trends in future military art and to suggest ways the PLA should approach future operations while seeking to burnish his own identity and reputation as an innovator of new military doctrine.

Jiang’s title for the book, *Yuan Zhan* (远战), is a contraction of the Chinese term *Yuan Cheng Zuo Zhan* (远程作战), which has been a concept in PLA operational art for a long time. In justifying a shift for the PLA to “long-distance or expeditionary operations,” Jiang reminds readers that China has a long history of expeditionary operations. He wrote that:

600 years ago, China was one of the world’s greatest economic and military powers, and at the same time had the world’s greatest capacity for long-distance military operations.<sup>14</sup>

What Jiang describes is PLA operational art in *Long-Distance Operations* and the importance of taking the battle out of China’s peripheral waters into the far

seas and beyond. He also adds to the “active defense” concept the need to be able to conduct attacks on an enemy homeland that bring the threat to an enemy’s civilian population.

### **JIANG’S LONG-DISTANCE OPERATIONS IN PERSPECTIVE**

To put *Long-Distance Operations* into perspective, it should be understood as an attempt to move away from China’s traditional, peripheral close-in or “near-seas” defense posture as it transitions to great power status. The crux of Jiang’s most important argument is that long-distance operations “in no way [mean] that China must change its traditional defensive orientation” (“绝不意味着要改变防御性的国防政策”).<sup>15</sup> However, to establish a strong capability to conduct long-distance operations, China must adapt its defense posture to one more suited to modern “informatized conditions” and be ready to “make rational choices and prepare for combat under information systems-based long-distance warfare conditions” (“信息化远站条件下进行争政准备的合理的选择”).<sup>16</sup> In this sense, the book advances the concept of “active defense” and urges the PLA to develop new forms of weapons that are suitable for this strategy.<sup>17</sup>

Jiang was not alone in advocating what later translated into shifts in China’s strategy. Other officers of his grade and generation: colonels, senior colonels, and major generals, who are officers in their 30s through late-40s, either explicitly or implicitly urge similar changes in strategy and strategic culture. Careful analyses of publications by these younger PLA authors help capture trends in their thinking and that of their peers, which often reveal future trends in military posture or doctrine.

*Long-Distance Operations* fits into a genre that is not established PLA doctrine, but attempts to push doctrine and military operations in new directions. To a certain extent, the books are aspirational and advocate capabilities and weapons systems that would make the PLA a more effective actor in a global context. Among the other books that fit this mold are:

- *Unrestricted Warfare* (超限战) by Qiao Liang (乔良) and Wang Xiansui (王湘穗);<sup>18</sup>
- *Unhappy China* (中国不高兴) by Song Xiaojun (宋晓军) and coauthors;<sup>19</sup>
- *The Study of Integrated Aerospace Operations* (空天一体作战学) by Cai Fengzhen and Tian Anping;<sup>20</sup>
- *Integrated Aerospace Information Operations* (空天一体信息作战) by Li Rongchang and his writing team;<sup>21</sup> and,
- *A Discussion of China's National Maritime Interests* (国家海上利益论) by Wang Lidong.<sup>22</sup>

In each of these cases, the authors are from the PLA, and many were assigned to positions that require them to explore new military concepts. All of the authors seem to believe that within the context of active defense, and the transition to major power status, China must be able to impose its will quickly and at extended distances with effective military forces. All of these authors are writing books that are aspirational in terms of doctrine, force posture, new weapons, and tactics.

Qiao and Wang advance the case for a combination of legal warfare, information warfare, and space warfare directed against an enemy and its populace, combined with the development of “new concept weapons” for the PLA.<sup>23</sup> Song argues for a navy that

can operate on the high seas, commenting that the escort operations the PLA Navy is conducting off of Africa are not sufficient for national security or to protect sea lines of communication (SLOCs).<sup>24</sup> Cai and Tian are major proponents for the capacity to conduct long-distance air operations combined with information warfare, space warfare, and anti-satellite programs.<sup>25</sup> Li, Cheng, and Zheng, like their Air Force counterparts Cai and Tian, want to see the PLA be able to orchestrate integrated offensive operations against an enemy on its homeland, in the air, and in space, by combining information attacks, electronic warfare, traditional air operations, and space warfare.<sup>26</sup> Wang expressed the view that as the PLA gets stronger to carry out the kinds of external missions implied in Hu's "historic missions" speech, it would need to develop a stronger maritime capacity as part of China's "comprehensive national security."<sup>27</sup> The common denominator among these writers is the need to shift from close-in defensive strategies to active defense and greater deterrence in a regional or global context.

The books are not doctrine; they should be read as texts produced by journeyman PLA strategists or military thinkers who are not senior leaders or combat force commanders. These authors have caught what appears to be a popular current among their peers, providing ideas about changes in strategy. Of course, the fact that these books were published by established publishing houses under central military control may also mean that these currents of thinking represent trends that are at least tacitly supported by more senior PLA officers. Certainly, if such writings were seen as heretical or disloyal by senior leaders in the CCP or PLA, the books would be pulled off the market, the authors would likely be subject to

re-education, and probably be forced to leave active duty in the PLA. However, it does not appear that this has happened.

## **JIANG ON CHINA'S WEAKNESSES AGAINST A POWERFUL "HEGEMONISTIC" ENEMY**

Jiang is emphatic that if China is to become a "developing great power" ("发展中的大国") it must have a powerful capacity to conduct long-distance operations, both to engage the enemy at far distances from China's coast and to develop expeditionary capabilities in the PLA.<sup>28</sup> According to Jiang, the only way that China can oppose "great power hegemonism" is to be able to engage an enemy at far distances from China's mainland.<sup>29</sup> Doing so, Jiang asserts, is the key to securing stability and national security. Of course, by using the formulation he did, "oppose hegemonism" ("反霸权主义"), without naming the United States as the potential enemy, Jiang makes it clear that it is the threatening capabilities of the "hegemonist great power" that force China to respond with its own long-distance military operational capabilities.

Jiang develops this theme with a chart that demonstrates China's deficiencies in long-distance operations against an enemy's capabilities to conduct such operations. See Table 1.

<b>Enemy Capabilities</b>	<b>China's Deficiencies</b>
Able to strike China's bases, combat platforms, and rear areas.	Only has the capacity to strike the enemy's forward-deployed platforms.
Rear areas are able to conduct operations in peace.	Rear areas are threatened and not peaceful.
Campaign operations, mobility, and tactic are concealed.	Campaign operations, tactics, and deployments in depth are evident to the enemy.
Unobstructed and protected rear areas and logistics.	Potentially obstructed and disrupted rear areas and logistics.
No threat to the non-combatant populace in rear areas.	Non-combatant populace in rear areas threatened.

**Table 1. Enemy Capabilities and China's Deficiencies.<sup>30</sup>**

Jiang concludes that to be able to conduct an effective conventional conflict in which nuclear weapons are not used, the PLA needs to develop a number of long-distance operational capabilities, without which China cannot become a 21st-century great power:

1. The capacity to conduct sustained conventional long-range ballistic missile strikes;
2. Ground fires, naval fires, air fires, and cruise missile fires that can engage the enemy at long ranges;
3. Long-distance artillery strikes with guided weapons;
4. Numerous types of air platforms capable of long-distance precision strikes;
5. Long-range, stealthy strike aircraft;
6. Long-range unmanned aerial vehicles capable to strike;
7. Unmanned, long-range electronic warfare platforms;

8. Effective submarine attack capabilities;
9. Unmanned naval and submarine strike platforms;
10. Effective offensive mine-laying capabilities;
11. Aerostats (浮空器) (lighter than air platforms) for air strikes, communications, reconnaissance, electronic warfare, and bombing;
12. Ground-launched anti-satellite weapons;
13. Space-based anti-satellite weapons and surface attack weapons;
14. New-concept, advanced-attack weapons (e.g., millimeter wave, rail gun, directed energy); and,
15. Deep-insertion special operations forces.<sup>31</sup>

The attention Jiang paid to developing the capability to conduct sudden attacks from deep space and concentrated fires from air and space to break up enemy formations and destroy troops and equipment is not unique in PLA thinking. As early as 2002, PLA publications on future warfare called for the development of these capabilities.<sup>32</sup> However, Jiang argues for a comprehensive approach to long-distance operations that extends to the enemy's rear areas and holds its non-combatant populace at risk.

According to Jiang, the key to a long-distance strike network is the availability of satellite reconnaissance with excellent resolution.<sup>33</sup> He makes reference to the success of the United States in the first Iraq war as an example of the types of long-distance operations that such satellite reconnaissance enables.<sup>34</sup> For China, however, according to Jiang, the PLA needs enough satellite coverage so a target is not acquired only once or twice a day.<sup>35</sup> In other words, persistent coverage and persistent strike require a geostationary

look, a network of satellites with different orbits, or unmanned platforms that can keep a target under persistent observation.

With regard to platforms for long-distance operations, Jiang makes the case for developing nuclear-powered aircraft carriers and miniaturizing the size of nuclear reactors so that space weapons, ground combat vehicles, and more ships can employ nuclear power.<sup>36</sup> To be able to conduct precision strikes on critical targets, China needs to develop weapons like the U.S. Joint Direct Attack Munition (JDAM).<sup>37</sup> Jiang also advocates the development of unmanned strike aircraft that operate in space and can attack surface targets with guided JDAM-like munitions.<sup>38</sup> For future operations into the 2020 to 2025 time frame, Jiang wants to see the PLA develop a generation of submarine-launched, long-distance, high-speed attack missiles that can be effective against ground and sea targets.<sup>39</sup>

Addressing the need for weapons that can support long-distance operations, Jiang foresees a range of new platforms, weapons, and equipment requirements.<sup>40</sup> He thinks most of China's current systems support mid-distance operations, but in order to conduct long-distance operations, all of China's weapons systems must be capable of greater speed, endurance, and increased lethality.<sup>41</sup> Specifically, with respect to "new concept weapons," Jiang believes China needs:

- Long-range cruise missiles with precision accuracy;
- Conventional long-distance munitions with greater killing power;
- Long-distance electronic warfare capabilities;
- Directed energy munitions and weapons like lasers and electric guns;

- Network attack systems that can paralyze enemy command control, communications, computers, intelligence, surveillance, and reconnaissance (C4ISR) systems;
- Networked offensive weapons systems that can attack a distant enemy; and,
- New and advanced forms of propellants and explosives.<sup>42</sup>

In the concluding chapters of *Long-Distance Operations*, Jiang discusses the need to develop long-range precision-strike capabilities, the ability to operate on or above the high seas, and new forms of weapons.<sup>43</sup> This final section is entitled “Weilai de Yuan Zhan” (“未来的远战”) (“Future Long-Distance Operations”). In its four chapters, Jiang discusses the structure of a long-distance strategy as creating a “long-distance killing axe” (“远战止戈”),<sup>44</sup> the weapons and equipment that create a long-distance warfare system, the “shape” or “pattern” of future long-distance operations, and the need to create a new culture of national defense in China that supports long-distance operations (which the author of this Letort Paper interprets as a more active offensive posture). As in the book’s initial chapters, Jiang spends more time reviewing the evolution of weaponry than he does explaining how new weapons translate into the basis for new forms or concepts of operations. The book looks very much like the review of the relationship between range, weaponry, precision fires, and warfare in Robert H. Scales, Jr.’s book *Certain Victory: The U.S. Army in the Gulf War*, in which Scales begins a conceptual exploration of how operations in future wars may evolve, focusing on a historical review of weapons, tactics, and operations.<sup>45</sup>

Jiang borrows extensively from American thinking about the conduct of war but does not attribute his terms. In his discussion of the art of war (战法) (or methods of war), Jiang draws heavily on U.S. operational concepts. Citing only “profound expressions” (“奥达”) used by foreign armies, Jiang explains the observe-orient-decide-act (OODA) loop concept in U.S. doctrine,<sup>46</sup> prevalent since the 1950s. In Jiang’s view, the ability to adopt the art of long-distance warfare means that in China, the OODA loop should be adopted as (观察-定位-判断-决策) (*Guancha* [scrutinize or observe], *Dingwei* [locate or orient], *Panduan* [judge], and *Juece* [make a strategic decision]).<sup>47</sup> Jiang believes the process should inform all practical command and control decisions a leader may face.<sup>48</sup> Under the modern conditions of informatized and networked warfare, operational troops and commanders must use all of the C4ISR systems available to them in making operational decisions.<sup>49</sup>

Jiang notes the importance of developing unmanned operations platforms (无人作战平台) that combine precision strike and killing power, but does not discuss the specifics of platform capabilities.<sup>50</sup> Nor does he address how employing the new platforms will allow the PLA to transform warfare or operations, except to reiterate the concept of a “long distance killing axe.” According to Jiang, being able to employ long-distance platforms requires China to develop a strong aerospace information network.<sup>51</sup> In addition, this network requires a precision timing and satellite navigation network on par with the U.S. Global Positioning System,<sup>52</sup> something that China had only begun to deploy with its *BeiDou* navigation satellite system when the book was written in 2007. The coordination of joint operations in future war means that

all of the arms and services of the PLA must be part of an information systems network to collectively support all of the arms and services of the PLA.<sup>53</sup>

Since 2007, when Jiang published *Long-Distance Operations*, the PLA has actively worked to address many of the deficiencies that he identified. The PLA has made long-distance deployments with flotillas and expeditionary task groups, conducted long-range air operations, exercised for long-distance ground force deployments, and used expeditionary forces for non-combatant evacuation operations.

A General Logistics Department officer, Zeng Youchun (曾友春), writing in *China Military Science* in 2009, called for the development of a strategic force projection capability for the PLA in order to keep up with the materiel and support needs and speed of modern operations.<sup>54</sup> Zeng called for the PLA to modernize its strategic force projection and to develop “new types of airdrop precision systems, using datalink technology, and to implement precision force projection at the right time, place, and quantity.”<sup>55</sup> Expressed in U.S. terms, this amounts to on-time logistics support at precise locations for deployed forces. In addition, Zeng believes the PLA must develop strategic stockpiles of materiel to meet battlefield needs.<sup>56</sup> Another authoritative publication was the 2014 PLA AMS three-volume, 1,978-page, work by the former commander of the Nanjing Military Region, retired General Zhu Wenquan (朱文泉), *On Island Warfare* (岛屿战争论).<sup>57</sup> Zhu’s work contains a preface by former Chinese Minister of Defense and deputy director of the CMC, Chi Haotian (迟浩田), who points out that without developing into a strong maritime power, China cannot develop along the path to become a strong world power.<sup>58</sup> In closing the three-volume work, Zhu emphasizes that in order

to be effective in strategic deterrence (战略威慑), China must be able to have strong military power, the will to use that power, and the capacity to make sure that an enemy believes that the foregoing two points are a real threat.<sup>59</sup> In pursuit of that, the PLA is actively conducting exercises and publishing doctrine to realize the capacity to conduct long-distance operations.

## **MILITARY PUBLICATIONS AND ACTIVITIES THAT ADDRESS GAPS IDENTIFIED BY JIANG**

The PLA Navy did not deploy outside the first island chain, extending from Japan through Taiwan, from 2004 through 2006.<sup>60</sup> It refined operations through exercises in the “near seas” (the Bohai Gulf, the Yellow Sea, the East China Sea, the Taiwan Strait, and the South China Sea).<sup>61</sup> In 2005 and 2008, for example, the North Sea Fleet conducted long-distance operations, exercises, and training to focus on integrated operations between surface ships and submarines.<sup>62</sup> In 2008, the PLA sent its first escort task force to the Gulf of Aden. The task force consisted of two destroyers and a replenishment ship. On April 3, 2015, the PLA Navy sent its 20th task force of the same size for escort missions in the Gulf.<sup>63</sup> Before that, a 10-ship flotilla transiting 500 kilometers from the Shandong area to the Yellow Sea was considered a long-distance operation, even though the flotilla never left China’s near seas inside the first island chain.<sup>64</sup>

From 2007 to 2009, the PLA Navy began to operate in the Western Pacific in the Philippine Sea as part of a strategy of near-seas active defense.<sup>65</sup> After a series of deployments into the Philippine Sea in 2010 to 2012, the PLA Navy began a transition to a “far-seas” defense capability, sending naval task forces in the Western Pacific.<sup>66</sup> According to the *PLA Daily*, a North

Sea Fleet surface action task force conducted reconnaissance and patrol operations through the Miyako Strait (in the vicinity of the Senkaku Islands, Okinawa, and Taiwan) into the Western Pacific.<sup>67</sup> Earlier, the PLA Navy had sent an expeditionary task force into the Indian Ocean after landing exercises in the Spratly Islands.<sup>68</sup> This task force transited the Sunda and Lombok Straits. Analysts at the U.S. Office of Naval Intelligence believe that President and Chairman of the CMC Xi Jinping and senior PLA leaders “are pushing development of mission sets such as military operations other than war (MOOTW) and sea lines of communication (SLOC) protection,” making a transition from offshore defense to “blue water defense.”<sup>69</sup> Chinese strategists perceive a potential vulnerability in SLOCs for trade coming from the Indian Ocean, the bulk of which passes through the Malacca Strait. For the PLA Navy, this creates a requirement to be able to secure these SLOCs. The PLA refers to this as its “Malacca Dilemma,” fearing that in a conflict, a hostile power, primarily India or the United States, may interdict shipping to China there.<sup>70</sup>

In his study for the U.S. National Defense University, Christopher Sharman, a Navy officer and former naval attaché in China, argued that China is ready to modify its maritime strategy and create a far-seas strategy with regular patrol operations in the Indian Ocean and Western Pacific.<sup>71</sup> Between 2010 and 2012, Sharman documents 13 PLA naval operations from all three PLA Navy fleets through straits and channels that pass through the first island chain into the Western Pacific.<sup>72</sup> Moving to a strategy of “far-seas defense,” according to Sharman, in 2013 and 2014, the PLA Navy sent 19 naval task forces into the Western Pacific, making deployments there part of normal rou-

tine.<sup>73</sup> Sharman also documents PLA Navy aircraft being integrated into operations in the Philippine Sea, including Y-8 and Y-9 reconnaissance aircraft and PLA Navy H-6 bombers.<sup>74</sup>

With respect to space intelligence, surveillance, and reconnaissance (ISR), Cai Fengzhen, a PLA Air Force (PLAAF) major general, and Tian Anping, a PLAAF senior colonel, agree with Jiang and believe that China must develop a robust, space-based reconnaissance capacity to support precision-strike and long-distance operations.<sup>75</sup> Imaging satellite capabilities, according to Cai and Tian, must be complemented by electronic warfare and electronic sensor systems in space to target a distant enemy.<sup>76</sup> Pursuing paralyzing effects from computer attack and electronic warfare, Dai Qingmin (戴风震), former director of the PLA General Staff Department Radar and Electronic Countermeasures Department, laid out a vision of future combat operations that focuses on:

the destruction and control of the enemy's information infrastructure and strategic life blood, selecting key enemy targets, and launching effective network-electronic attacks.<sup>77</sup>

Jiang also suggests that in doing so the PLA expects to weaken and paralyze an enemy's decisionmaking and the political, economic, and military aspects of its entire war potential. With respect to Jiang's suggestions about the use of aerostats, according to *Defense News*:

Chinese academic, commercial, and military institutions are aggressively studying the use of lighter-than-air (LTA) platforms for a variety of missions, including intelligence, surveillance, and reconnaissance, special operations, transportation over rugged terrain and as communications relays.<sup>78</sup>

A survey by *Defense News* in 2010 identified over thirty academic, military, and science and technology institutions involved in the program.<sup>79</sup>

The PLA also has fielded two versions of stealth fighter aircraft, the J-20 and the J-31, developed at two different state-owned aircraft factories.<sup>80</sup> In 2014, a hypersonic missile, the WU-14, was tested as part of research into hypersonic glide weapons.<sup>81</sup> According to Mark Stokes of Project 2049, a Washington, DC-area think tank, the PLA may be able to conduct “boosted hypersonic . . . intercontinental strike by 2020” and field “before 2025 . . . hypersonic scram-jet-propelled cruise vehicle for global operations.”<sup>82</sup> In 2010, the PLAAF conducted its first long-range fighter deployment to Turkey for a joint exercise.<sup>83</sup> During this deployment, the aircraft were refueled in flight by PLA tankers and also made a stop in Iran. In pursuit of long-range bomber strike capabilities, the PLAAF “deployed bombers for strikes on ground targets” in support of a Shanghai Cooperation Organization exercise in Kazakhstan.<sup>84</sup> The aircraft also were refueled in flight in order to conduct the long-distance strike mission.

The PLAAF conducted its first long-distance “mobility and combat drill” over the western Pacific in March 2015.<sup>85</sup> In this exercise, a number of aircraft conducted a patrol around the Bashi Channel, between the Philippines and Taiwan.<sup>86</sup> New versions of the PLAAF H-6G bomber from the Guangzhou Military Region (MR) conducted this training.<sup>87</sup> This may be an attempt by the PLAAF to catch up with the PLA Navy in operations capacity; however, the concept of “joint, integrated operations” means that the Air Force should be able to do these things along with the Navy.<sup>88</sup>

There also are commentaries being published on support mechanisms for long-distance operations. In a PLA web blog, one author complains about the PLAAF's shortcomings in "advanced fighter jets, bombers, large aircraft, missiles and precision-guided bombs."<sup>89</sup> However, the author notes that even if these capabilities are improved, a major limitation to long-distance air operations is the inability to conduct the necessary search and rescue.<sup>90</sup> The commentator argues that in air combat in and beyond the Diaoyu Islands (the Senkaku Islands) or in the South China Sea, the capability to conduct long-distance combat search and rescue will be important to sustaining operations.<sup>91</sup> The author believes that the PLAAF must develop a long-distance special operations capability to complement search and rescue activities.

The PLA is carrying out a number of exercises to sharpen its ability to conduct joint warfare, project force, and carry out precision strikes.<sup>92</sup> In 2010, the PLA conducted "Mission Action" ("使命行动") trans-regional joint exercises to refine the ability to project power.<sup>93</sup> The "Joint Action" ("联合") exercises by the PLA will continue through 2054, and are designed to respond to Xi's instructions to "raise the combat level of military training" for all forces.<sup>94</sup> These exercises include long-distance force projection training for the PLA at sea, overland, and in the air, focusing on improving joint force coordination in exercises that involved opposing forces.<sup>95</sup> The Second Artillery Corps forces are integrated into the exercises to improve coordination among arms and services. They are conducted along with joint firepower exercises (火力),<sup>96</sup> including the "Kua Yeu" ("long-stride") exercises, which are designed to improve integrated and rapid force projection over long distances.<sup>97</sup>

In an overwater long-distance air exercise on April 14, 2014, a PLAAF regiment “sent three mid-sized transport planes . . . on a long-distance journey to a target area in long-range waters to implement over-sea flight training.”<sup>98</sup> In this mission, the Air Force practiced “over-sea flying, low altitude mobility, airdrop and air landing [operations], and formation forming.”<sup>99</sup> The PLAAF newspaper said that this was the longest flying time for overwater flight training and the farthest distance for such operations in 50 years.<sup>100</sup> The airborne drops mean that the training probably involved units one or more divisions subordinate to the PLAAF 15th Airborne Corps, headquartered in Xiaogan, Hubei Province in Guangzhou MR.<sup>101</sup> Transports probably came from the 14th Air Transport Division, which according to Indian publications, support the 15th Airborne Corps.<sup>102</sup>

To reach these objectives for long-distance operations, the PLA is adding improved surveillance and target acquisition capabilities with new airborne early-warning and control aircraft that can operate from shorter airfields, such as those being constructed in the Spratly Islands. There has been a good deal of progress in the PLA in improving long-distance target acquisition and management in operations. According to an article in *Jane's Defence Weekly*, the PLA has put into active service a new airborne early-warning and control aircraft, the KJ-500, with a new radar.<sup>103</sup> The radar is mounted on the Y-9, an aircraft smaller than the PLA Y-8 and IL-76, and “can acquire and track 6 to 100 targets simultaneously at a range out to 470 kilometers.”<sup>104</sup> The author of the article, Richard D. Fisher, finds the phased array radar on the KJ-500 “strikingly similar” to the Swedish Saab Erieye radar, which has a field of view of 240 degrees.<sup>105</sup> In a further comment

on the significance of the new system, Fisher stated that the Y-9 can use a 1,300 meter airstrip, so it “could be deployed to the Spratly Island Group” and operate in support of a South China Sea Air Defense Intercept Zone if one was established.<sup>106</sup> The Y-9 is a medium-sized transport and support aircraft developed as an improvement on the Y-8.<sup>107</sup> In comparison, the U.S. E-3 Sentry Airborne Warning and Control System (AWACS) aircraft has a target acquisition range of 375 kilometers for low-flying targets and 650 kilometers for medium- and high-altitude targets, but requires a 2,600 meter runway.<sup>108</sup> The smaller U.S. Navy E-2C can take off and land from an aircraft carrier and can track 600 targets.<sup>109</sup>

Other organizations and military thinkers in the PLA also are exploring improving information networks. Three authors from the PLA National Defense University have sketched out a plan to improve command and control coordination in theaters of war (战区) with an emphasis on conducting joint operations.<sup>110</sup> Among their suggestions is ensuring that subordinate to the Theater of War headquarters, there should be a PLAAF Campaign Group Command and Control headquarters that can ensure that subordinate airborne forces and Air Force combat and support elements are able to operate jointly with the PLA Navy forces and PLA Marines.<sup>111</sup> Their objective is to overcome the tendency in the PLA for each service and branch (ground forces, Navy, Air Force, and Second Artillery Corps) to operate independently in “silos” or cones and to ensure that the Theater of War commander and staff can conduct joint operations at distances away from the immediate periphery of China.<sup>112</sup> All of this is designed to create a “system of systems” approach to C4ISR and to ensure that com-

mand, control, reconnaissance, and strike operations are jointly coordinated.<sup>113</sup> The United States tends to be the model PLA officers use to demonstrate the need for a comprehensive C4ISR system. A team of authors from the AMS wants to see a national-level, strategic C4ISR system that can support long-distance missile operations and networked service and arms specific C4ISR capabilities for theater operations.<sup>114</sup> In December 2015, many of these changes were implemented in the PLA, the full implications and outline of which are still to be assessed.<sup>115</sup>

Further exploring this idea of the advantages and inherent weaknesses of a “system of systems” approach to military operations, one PLA officer assesses the limitations of information systems-based approaches to command and control and the ways to use those weaknesses against an enemy that employs information-based C4ISR in war.<sup>116</sup> Zhang Wenyong argues that:

In informatized conditions, with operational systems supported by information systems, it is now possible to break out of the situation in which connections are “vertically strong but horizontally weak” among the various military branches, eliminate the “information islands” which existed in the past, and realize complementary coordination of functions and mutual support among the various military branches.<sup>117</sup>

Zhang continues his assessment by pointing out that one can take advantage of the ability to paralyze an enemy’s “system of systems” to carry out:

long-range damaging attacks, precision point strikes, and decapitation strikes against enemy operational systems . . . using precision firepower strike to implement structural damage; using saboteurs to imple-

ment structure damage; and using information attack methods to implement structural damage.<sup>118</sup>

There is a strong current in PLA military literature arguing for the sorts of “new concept weapons” advocated by Jiang. Writing in the *Winged Missiles Journal*, three authors from the 63650 unit of the PLA General Armaments Department assess U.S. successes with directed energy weapons and point out that:

1. Directed energy weapon systems are diverse in form and purpose. They are defensive systems that provide cover for other main battle weapons, and they are offensive systems that can directly attack enemy armaments.
2. They are a combination of various battle modes: electronic warfare, information warfare, network warfare, and psychological warfare. Directed energy weapons in joint operations can deter enemy strategic intentions to initiate battle and engage in warfare. On the campaign level, they can scramble the enemy’s decision-making programs; on the tactical level, they can accomplish the goal of paralyzing enemy force systems.
3. Because directed energy weapons can become the main battle weapons for seizing electromagnetic supremacy and information dominance on future battlefields, the main counteractive measures will be soft kill and hard destruction attacks against directed energy weapon positions; the question that must be resolved then is: How are directed energy weapons to be protected and quickly restored to action?<sup>119</sup>

Although such systems are not yet matured, they imply that there is great potential for improving China's operational capabilities in developing similar systems.<sup>120</sup>

The progress made by the PLA in making its active defense strategy more relevant to a nation with international interests is remarkable, although slow. If one compares the changes documented above, how do they compare to what Jiang recommended in 2007?

## **EVALUATING THE 2015 PLA USING JIANG'S 2007 STANDARDS**

The PLA's long-distance operations training is probably more noteworthy for the tentative and exploratory nature of its operations and limited size and scope than it is for what the PLA has accomplished to date. All of this suggests that the PLA and its senior leadership are slowly and carefully developing the capacity for long-distance operations, but are not rushing to rapidly convert the PLA into an expeditionary force.

Examining Jiang's comparison of China's deficiencies in long-distance operations against an enemy (see Table 1.), China has only minimally improved its capacity to strike the enemy's forward-deployed platforms. The DF-21D anti-ship ballistic missile may be fielded, but it is very dependent on ISR capabilities that the PLA may not be able to sustain in combat. Efforts to improve the strike and engagement capability with bombers and fighters are not yet fully developed, and still require the use of air-to-surface anti-ship cruise missiles. Meanwhile, the United States has improved its own capabilities for striking China's bases, platforms, and rear areas and incorporated new sys-

tems into concepts like air-sea battle and rapid, flexible deployments of combat aircraft.

The PLA has achieved a notable capacity to conduct cyberattacks on the United States and can attack the United States with strategic nuclear weapons. However, it is a long way from developing the capability to threaten U.S. rear areas. The United States would be able to conduct operations in essential peace, so long as nuclear deterrence holds in a conventional conflict. The PLA however, can strike U.S. forward bases in Asia with a combination of missiles, aircraft, and potentially, naval fires.

China's ISR capabilities have improved significantly over the intervening years, primarily over the Western Pacific. The PLA still does not have the type of sophisticated, redundant surveillance over the United States and the forward bases that the United States can employ. In addition, although China is improving its overwater surveillance, it has limited airborne warning and control assets and only one aircraft carrier from which to base AWACS systems. That said, the newer Y-9 aircraft could operate from Chinese-controlled land features in the South China Sea. U.S. operations, mobility, and tactics, therefore, remain better concealed than China's.

China's rear areas are still relatively easy to be disrupted by U.S. forward-deployed forces and concepts like global strike, if not with cyber penetrations. The U.S. homeland, in comparison, remains relatively safe, except for the problem of China's cyberattack capabilities. However, there is no real threat to the U.S. populace right now from China in a conventional conflict, since China has made only incremental improvements in the security of interior lines of communication with its "far-seas strategy" thus far.

Addressing the types of weapons and capabilities Jiang wanted the PLA to develop, there is no question that the PLA can conduct effective conventional ballistic missile strikes, but how sustained they can be may not meet Jiang's criteria. In cruise missiles, naval, and air fires, the PLA has made improvements, but to have effective precision fires, the PLA still must improve its ISR.

There are now PLA stealth aircraft programs in the process of testing and initial fielding, but these do not currently meet the level of capability that Jiang envisioned. The same is true for China's developing unmanned air and naval vehicle capabilities. In areas like mine-laying, long-range aerial reconnaissance, and submarines, the PLA capability has improved, but not to the point that they would be crippling factors in a conflict.

In space attack and anti-satellite weapons, whether space-based or ground attack, the PLA is quite capable.

At a December 24-25, 2015 meeting on the reform of the PLA, President and CMC Chairman Xi called for a restructuring of the military and reforms in the armed forces by 2020.<sup>121</sup> The first elements of the reform Xi announced were the consolidation and restructuring of area commands: the seven military regions were made into five "battle zones" or theaters of war (战区) referred to earlier in this Letort Paper. Command of the new theaters was moved directly under the CMC, and the four general departments (General Staff Department, General Logistics Department, General Armaments Department, and General Political Department) were also reorganized into offices under the CMC. According to an analysis by a Japanese reporter, the objectives were to eliminate a

layer of command, strengthen Xi's control of the PLA, and help control corruption.<sup>122</sup> Joint command centers were established to ensure that the services and the theaters were run through the CMC. Dr. David Finkelstein, vice president and director of the Center for Naval Analyses (CNA) China Studies, in a CNA study, also notes that on December 31, 2015:

the former Second Artillery Force (二炮), a branch (兵种) of the PLA ground forces was disestablished. In its place, a new service (军种) co-equal to the Army, Navy, and Air Force was established: the People's Liberation Army PLA Rocket Force (中国人民解放军火箭军).<sup>123</sup>

The PLA also established the Strategic Support Force (战略支援部队), another new service that will function separately like the Navy and Air Force. The Strategic Support Force will provide logistics, space support, ISR, electronic warfare, cyber support, and may also conduct information operations.<sup>124</sup> The CMC also established a PLA Army (中国人民解放军陆军) as a separate service with its own dedicated headquarters and command structure.<sup>125</sup> In testimony before a congressional commission, Finkelstein said that the PLA refers to this new organizational arrangement as a "two level joint operations command system" ("两级联合作战指挥体制"); however, he argued that the full implications of all the reforms will take some time to understand.<sup>126</sup>

## CONCLUSION

Jiang Yamin urged the PLA to develop a military force and weaponry that can engage an enemy at long ranges with precision weapons and “new concept” weapons. He argued that the lack of long-distance operational capabilities for China is a major deficiency that limits the strength of China’s national defense capacity.<sup>127</sup> His ideas are also infused with indignation that for decades, China has been essentially able to defend itself and conduct military operations only in its immediate periphery. Meanwhile, the most capable potential enemy, the United States, can hold the population and PLA rear areas at risk with deep strike precision weapons. Jiang advocates developing weapons and even a new strategic national defense culture to bring the fight to the enemy on the enemy’s shores.<sup>128</sup>

Jiang was promoted since he published *Long-Distance Warfare*. However, this is the only book openly available on this subject from him. After its publication, he moved up in rank and position in the AMS and has been allowed to establish a high public profile. Jiang’s public work seems to have shifted in recent times, though; he now apparently specializes in wargaming as it applies to military strategy and operations. Qiao Liang also was promoted to major general, although not much has been heard of Wang Xiansui after the publication of *Unrestricted Warfare*. Tian, although now retired, was promoted, and Cai ran the PLAAF Command College.

Despite the urgings of Jiang and like-minded thinkers, neither the CMC nor the Politburo Standing Committee has rushed to change PLA posture. The moves by Chairman Xi and the CMC in November and

December 2015 followed years of tentative operational explorations of long-distance military operations by elements of the PLA. Whether the series of publications reviewed in this Letort Paper was orchestrated by the General Staff Department is still not clear, but the PLA is changing in ways that mirror the U.S. combatant command structure. However, there are so many other issues that Xi is trying to address, from corruption to factional infighting in the Communist Party, that it will take some time to fully assess the ultimate objectives of the reforms and how they contribute to expeditionary operations. At this time, although the “active defense” contains within it a need for offensive action and allows for forms of preemption, there has been no fundamental shift of China’s traditionally defensive military posture to an offensive posture that resembles that of the former Soviet Union.

It is possible that what we see in official utterances about the defensive nature of China’s military posture are only forms of perception management or reassurance to foreign observers that there is no change in strategic orientation. In the Asia-Pacific region, certainly, the PRC has become more aggressive as the PLA gains in strength and capacity. Outside the theater of operations, however, the PLA posture remains defensive. We cannot know how the PLA or the CMC will conceive of operations as China’s strength and capacity grows. Nor can we see the military’s contingency plans that may well call for rapidly executed, long-distance operations that would threaten a distant enemy, its military, and its population on its own shores. The PLA already is capable of bringing the fight to an enemy with ballistic missiles, computer network operations, and space operations.

Books like *Long-Distance Operations* from a strategist at the PLA AMS may offer only a peek into what operational PLA commanders and combat staff officers may be thinking and writing about in papers at Military Region operations conferences and service command colleges. In a decade, the younger officers attending command colleges and writing these papers will lead or staff combat divisions, fleets, or group armies. Some may later lead the PLA. Therefore, to complement research on military doctrine like the work in this study on *Long-Distance Operations*, more research into operational literature is needed. Such research may reveal where a new generation of leaders will take China's defense posture and what types of operations they will adopt.

A review of *Long-Distance Operations* 8 years after its publication still provides a good internal critique of the PLA's operational and equipment deficiencies. Few of the deficiencies pointed out by Jiang have been fully addressed. Still, many of the weapons systems, concepts for engaging an enemy, and forms of expeditionary operations called for in *Long-Distance Operations* became operational doctrine in the PLA or are reflected in weapons development programs today.

At about the same time *Long-Distance Operations* was published, a number of other military thinkers at different institutions in China advocated similar forms of operations and the development of similar weapons systems, indicating that these military authors reflect a current of thinking in the PLA about future warfare. The fact that a number of institutions and authors deal with the same topics in the same time frame likely means that the publication of *Long-Distance Operations* and other books discussed in this Letort Paper reflect aspirations of PLA strategists and came after high-

level PLA leaders called for new forms of expeditionary operations.

Ultimately, this analysis suggests that there is value in following the writings of PLA officers advocating new forms of weapons and operations. Many policy analysts and scholars dismiss such writings as “aspirational;” however, such writings capture trends in PLA military operational development. Even if there is a gap in time between the publication of books with aspirational ideas on operational concepts and the fielding of new weapons and forms of operations that put those concepts into effect, the research offers accurate insights into future PLA operations and systems. Observers must compare the ideas in future aspirational studies to PLA exercises and training to determine which concepts are being put into practice.

## ENDNOTES

1. Jiang Yamin (蒋亚民), *Yuan Zhan (远战) (Long-Distance Operations)*, Beijing, China: Military Science Publishing House, 2007.

2. The author of this Letort Paper acquired the book at the AMS bookstore in Beijing. According to a PLA Navy senior captain with whom the author was discussing the book in 2008, *Long-Distance Operations* was on the required reading list for PLA general and flag officers attending the PLA National Defense University’s “Capstone Course,” designed to prepare senior leaders for high-level command and staff positions involving strategic thinking and operations.

3. United States Department of Defense, Defense Intelligence Agency, *Directory of PRC Military Personalities*, Washington, DC: Defense Intelligence Agency, 2014, p. 353.

4. Hu Jintao (胡锦涛), “Renqing Xin Shiji Xin Jieduan Wojun Lishi Shiming” (“认清新世纪新阶段我军历史使命”) (“Understand the New Historic Missions of Our Military in the New Period of

the New Century”), speech to the CMC of the CCP, December 24, 2004, available from [gfjy.jiangxi.gov.cn/htmnew/11349.htm](http://gfjy.jiangxi.gov.cn/htmnew/11349.htm), accessed November 17, 2009. Hu’s “Historic Missions” for the People’s Liberation Army are:

To reinforce the armed forces’ loyalty to the Chinese Communist Party (CCP) to help ensure that the CCP maintains its grasp on power; to help ensure China’s sovereignty, territorial integrity, and domestic security in order to continue its national development; to continue to play an important role in handling Taiwanese and ethnic separatist movements, territorial land and sea disputes, non-traditional security problems, and social stability issues; to help safeguard China’s expanding national interests; and to help ensure world peace.

5. Marc McDonald, “China Confirms Naval Role in Gulf of Aden,” *The New York Times*, December 18, 2008, available from [nytimes.com/2008/12/19/world/asia/19patrols.html?\\_r=0](http://nytimes.com/2008/12/19/world/asia/19patrols.html?_r=0).

6. Flashpoints, “Four Lessons of the Falklands War,” *The Diplomat*, April 10, 2013, available from [thediplomat.com/2013/04/four-enduring-lessons-of-the-falklands-war/](http://thediplomat.com/2013/04/four-enduring-lessons-of-the-falklands-war/); also see Lyle Goldstein, “China’s Falklands Lessons,” *Survival*, Vol. 50, No. 3, June-July 2008, pp. 65-82, available from <https://www.iiss.org/en/publications/survival/sections/2008-4e2e/survival-global-politics-and-strategy-june-july-2008-acbb/50-3-08-goldstein-05c5>; and Christopher D. Yung, “Sinica Rules the Waves? The People’s Liberation Army Navy’s Power Projection and Anti-Access/Area Denial Lessons from the Falklands/ Malvinas Conflict,” in Andrew Scobell, David Lai, and Roy Kamphausen, eds., *Chinese Lessons from Other People’s Wars*, Carlisle, PA: Strategic Studies Institute, U.S. Army War College, and National Bureau of Asian Research, 2011, pp. 75-114.

7. Jiang Yamin (蒋亚民), “Dong Man Youxi yu Xiandai Guofang” (“动漫游戏与现代国防”) (“Animation Games and Modern National Defense”), a speech at the 2012 annual conference of China’s gaming industry, March 23, 2012, available from [games.sina.com.cn/y/n/2013-03-23/1447696428.shtml](http://games.sina.com.cn/y/n/2013-03-23/1447696428.shtml).

8. Jiang Yamin (蒋亚民), "Zai Kaifang de Wangluo Kongjian Jianli Guojia Anquan Jizhi" ("在开放的网络空间建立国家安全机制") ("Establishing a National Security Mechanism in Open Network Space"), *People's Daily Online*, July 22, 2014, available from [theory.people.com.cn/n/2014/0722/c386965-25316284.html](http://theory.people.com.cn/n/2014/0722/c386965-25316284.html).

9. Jiang Yamin (蒋亚民), "Youxi Ke Cujin Guofang Shunlian" ("游戏可促进国防军训练") ("Games Can Advance Defense Force Training"), speech at the 2011 Western Hills Conference of China's gaming industry, January 12, 2011, available from [zhuayoukong.com/37948.html](http://zhuayoukong.com/37948.html).

10. The armed forces of China are the active PLA, the Air Force, Navy, Army, and Second Artillery; their reserve forces are the militia and the paramilitary forces like the People's Armed Police.

11. Jiang Yamin (蒋亚民), *Yuan Zhan* (远战) (*Long-Distance Operations*), pp. 157-159, 163-164.

12. *Ibid.*, pp. 163-164.

13. *Ibid.*

14. *Ibid.*, p. 1, Introduction.

15. *Ibid.*, p. 99.

16. *Ibid.*, p. 99. The terms "prepare for combat or combat preparations" ("战争准备") are common in speeches to the military in China. The exhortation does not necessarily mean that hostilities are imminent. Instead, leaders often urge military units to "make preparations for combat" when they want to see a more intense training focus or to make clear that a particular issue is critical to China's security. For example, see Hu Jintao's speech to the CMC on the situation in the South China Sea, "China's Hu Reportedly Tells Navy to Get Ready for Military Combat," *Associated Press* and *Fox News*, December 11, 2011, available from [foxnews.com/world/2011/12/13/chinas-hu-reportedly-tells-navy-to-get-ready-for-military-combat/](http://foxnews.com/world/2011/12/13/chinas-hu-reportedly-tells-navy-to-get-ready-for-military-combat/).

17. Perhaps the best and most authoritative brief explanation of the active defense is by AMS strategist Chen Zhou (陈周), "Xin Shiqi de Jiji Fangyu Junshi Zhanlue" ("新时期积极防御军事战略") ("The Military Strategy of Active Defense for the New Period"), *Xuexi Shibao* (学习时报) (*Study Times*), March 18, 2008, available from [china.com.cn/xxsbtxt/2008-03/18/content\\_12996594.htm](http://china.com.cn/xxsbtxt/2008-03/18/content_12996594.htm); the most recent, authoritative discussion of the active defense strategy is in Shou Xiaosong (寿晓松) et al., *Zhanlue Xue 2013 Ban* (战略学 2013 版) (*Science of Military Strategy 2013 Edition*), Beijing, China: PLA Academy of Military Science Publishing House, 2013, pp. 41-50.

18. Qiao Liang (乔良) and Wang Xiangsui (王湘穗), *Chai Xian Zhan* (超限战) (*Unrestricted Warfare*), Beijing, China: PLA Literature and Arts Publishing House, 1999. Both of these officers are associated with the General Political Department of the PLA.

19. Song Xiaojun (宋晓军), "Zhongguo Wufa bu Xing Qi Da" ("中国无法不显其大") ("China Can do Nothing but [Must] Display its Greatness"), in Song Xiaojun (宋晓军), et al., *Zhongguo Bu Gaoxing: Da Shidai, Da Mubiao, ji Women de Nei YouWai Huan* (中国不高兴: 大时代, 大目标, 及我们的内忧外患) (*Unhappy China: The Time of Greatness, Grand Vision and Our Internal Strengths and External Perils*), Nanjing, China: Jiangsu People's Press, 2009.

20. Cai Fengzhen (菜凤震) and Tian Anping (田安平), et al., *Kongtian Yiti Zuozhan* (空天一体作战学) (*The Study of Integrated Aerospace Operations*), Beijing, China: PLA Publishing House, 2006.

21. Li Rongchang (李荣常), Cheng Jian (程建), and Zhang Li-anqing (郑连清), *Kongtian Yiti Xinxi Zuozhan* (空天一体信息作战) (*Integrated, Informationalized Aerospace Operations*), Beijing, China: Military Science Publishing House, 2003.

22. Wang Lidong (王立东), *Guojia Haishang Liyi Lun* (国家海上利益论) (*A Discussion of China's National Maritime Interests*), Beijing, China: PLA National Defense University Publishing House, 2007.

23. Qiao Liang (乔良) and Wang Xiangsui (王湘穗), p. 19.

24. Song Xiaojun (宋晓军), pp. 95-97.

25. Cai Fengzhen (蔡风震) and Tian Anping (田安平), *et al.*, pp. 270-301.

26. Li Rongchang (李荣常), Cheng Jian (程建), and Zhang Li-  
anqing (郑连清), pp. 198-236, 258- 294.

27. Wang Lidong (王立东), *Guojia Haishang Liyi Lun* (国家海上利益论) (*A Discussion of China's National Maritime Interests*), pp. 29-51, 128-161.

28. Jiang Yamin (蒋亚民), *Yuan Zhan* (远战) (*Long-Distance Operations*), p. 99.

29. *Ibid.*

30. *Ibid.*, p. 100.

31. *Ibid.*

32. Bi Xinglin (薛兴林), ed., *Zhanyi Lilun Xuexi Zhinan* (战役理论学习指南) (*Guidebook to the Study of Campaign Theory*), Beijing, China: PLA National Defense University Press, 2002, pp. 140-141.

33. Jiang Yamin (蒋亚民), *Yuan Zhan* (远战) (*Long-Distance Operations*), p. 195.

34. *Ibid.*, p. 194.

35. *Ibid.*

36. *Ibid.*, p. 197.

37. *Ibid.*, p. 198.

38. *Ibid.*

39. *Ibid.*, p. 200.

40. *Ibid.*, pp. 201-205.

41. *Ibid.*, pp. 201-202.

42. *Ibid.*, pp. 202-205.

43. *Ibid.*, pp. 175-230. This final section is entitled “Weilai de Yuan Zhan” (“未来的远战”) (“Future Long-Distance Operations”).

44. The ge (戈) or dagger axe is an ancient weapon on a pole that combines a sword-like long knife with a chopping axe. Its use in warfare in China predates the chariot and tightly packed infantry formations.

45. Robert H. Scales, Jr., *Certain Victory: The U.S. Army in the Gulf War*, Herndon, VA: Brassey's, 1994. See also Robert H. Scales, *The Past and Present as Prologue: Future Warfare Through the Lens of Contemporary Conflicts*, Washington, DC: Project for a New American Century, April 2009, available from [cnas.org/files/documents/publications/Scales\\_Past%20and%20Present\\_April2009.pdf](http://cnas.org/files/documents/publications/Scales_Past%20and%20Present_April2009.pdf).

46. The OODA (observe, orient, decide, act) Loop concept was developed by U.S. Air Force Colonel John Boyd in the 1950s, based on his experience as a fighter pilot in the Korean War. Boyd contributed to the art of air warfare by explaining pilot response in combat as a process of “observe” (what is happening), “orient” (one’s attention to what was observed), “decide” (what to do about what you have observed and oriented your attention to), and “act” (on that decision). See Tracy Hightower, “Boyd’s O.O.D.A. Loop and How We Use It,” available from [tacticalresponse.com/blogs/library/18649427-boyd-s-o-o-d-a-loop-and-how-we-use-it](http://tacticalresponse.com/blogs/library/18649427-boyd-s-o-o-d-a-loop-and-how-we-use-it); and David K. Williams, “What a Fighter Pilot Knows About Business: The OODA Loop,” *Forbes*, February 19, 2013, available from [forbes.com/sites/davidkwilliams/2013/02/19/what-a-fighter-pilot-knows-about-business-the-ooda-loop/](http://forbes.com/sites/davidkwilliams/2013/02/19/what-a-fighter-pilot-knows-about-business-the-ooda-loop/).

47. Jiang Yamin, (蒋亚民), *Yuan Zhan* (远战) (*Long-Distance Operations*), pp. 152-153.

48. *Ibid.*, p. 153.

49. *Ibid.*, p. 154.

50. *Ibid.*, pp. 175-176.

51. *Ibid.*, p. 193.

52. *Ibid.*, p. 194.

53. *Ibid.*, p. 195.

54. Zeng Youchun (曾友春) “Shilun Wo Jun Zhanlue Tou-song Ying Queli de Gainian” (“试论我军战略投送应确立的观念”) (“Concept that China Should Establish Strategic Force Projection”), *Zhongguo Junshi Kexue* (中国军事科学) (*China Military Science*), No. 5, 2009, pp. 77-82, 156.

55. *Ibid.*, p. 156.

56. *Ibid.*, p. 82.

57. Zhu Wenquan (朱文泉), *Daoyu Zhanzheng Lun* (岛屿战争论) (*On Island Warfare*), Three Volumes, Beijing, China: Academy of Military Science, 2014.

58. *Ibid.*, pp. 6-7.

59. *Ibid.*, pp. 1749-1750.

60. Christopher Sharman, “Exposed: How China’s Navy Went Global,” *The National Interest*, April 2, 2015, available from [nationalinterest.org/feature/exposed-how-chinas-navy-went-global-12523](http://nationalinterest.org/feature/exposed-how-chinas-navy-went-global-12523).

61. *Ibid.*

62. Wei Zhonggao (魏垂高) and Wang Qinghou (王庆厚), “Huang Hai Haiyu, Fengda Langgao, Jizhan Zhenghan. Beihai Jiandui Mou Zuozhan Jiyuan Jiandui” (“黄海海域 风大浪高 激战正酣 北海舰队某作战支援舰支队成功举行了制远程综合保障演练-海战, 支援编队为战舰护航”) (“In the Yellow Sea Area, Amid Wind and High Waves, Drink of a Fierce Battle. A Certain North Sea Fleet Support Operations Detachment Succeeds in Conducting a Long-Distance, Composite Support Exercises, Forming Columns to Support Large Warship Combat Battles”), *Jiefangjun Bao* (解放军报) (*PLA Daily*), January 28, 2008, p. 3.

63. "20th Chinese Naval Escort Task Force Leaves for Gulf of Aden," *Xinhua*, April 4, 2015, available from [en.people.cn/n/2015/0404/c90786-8873946-7.html](http://en.people.cn/n/2015/0404/c90786-8873946-7.html); for a more detailed treatment of these escort operations and their effect on the PLA Navy, see Andrew S. Ericson and Austin M. Strange, *No Substitute for Experience: Chinese Antipiracy Operations in the Gulf of Aden*, China Maritime Study No. 10, Newport, RI: U.S. Naval War College, November 2013.

64. Unattributed, "Miaozhun Shizhan Tigao Budui Yuancheng Jidong Nengli, Shandong Mou Chuan Dadui Kua Fangqu Qian Li Chuang Si Xiang, Di Yi" ("Take Aim at Real Combat, Raise Force Long-Distance Mobility Capabilities, A Certain Shandong Military District Naval Flotilla Goes Beyond 1,000 Kilometers Four Times for the First Time in a Mobility Exercise"), *Jiefangjun Bao* (解放军报) (*PLA Daily*), January 28, 2008, p. 2.

65. Sharman, "Exposed: How China's Navy Went Global," p. 1.

66. *Ibid.*

67. Du Yuhan (杜雨翰) and Wang Xu (王旭), "Beihai Jiandui Zhanbei Xunluo Yuanhai Xunlian" ("北海舰队战备巡逻远海训练编队赴西太训练") ("North Sea Fleet Task Force Conducts Combat Preparation Patrols in the Distant Seas with Formation Training in the Western Pacific"), *Jiefangjun Bao* (解放军报) (*PLA Daily*), June 9, 2014, p. 8.

68. Rory Medcalf, "China Makes Statement as it Sends Naval Ships off Australia's Maritime Approaches," *The Lowy Interpreter*, February 7, 2014, available from [lowyinterpreter.org/post/2014/02/07/China-makes-statement-as-it-sends-naval-ships-off-Australias-maritime-approaches.aspx?COLLCC=960857631&](http://lowyinterpreter.org/post/2014/02/07/China-makes-statement-as-it-sends-naval-ships-off-Australias-maritime-approaches.aspx?COLLCC=960857631&).

69. Office of Naval Intelligence, *The PLA Navy: New Capabilities and Missions for the 21st Century*, Washington, DC: ONI, April 2015, p. 47. available from [www.oni.navy.mil/Portals/12/Intel%20agencies/China\\_Media/2015\\_PLA\\_NAVY\\_PUB\\_Interactive.pdf?ver=2015-12-02-081058-483](http://www.oni.navy.mil/Portals/12/Intel%20agencies/China_Media/2015_PLA_NAVY_PUB_Interactive.pdf?ver=2015-12-02-081058-483).

70. Bernard D. Cole, *The Great Wall at Sea: China's Navy in the 21st Century*, 2nd Edition, Annapolis, MD: Naval Institute Press, 2010, p. 55.

71. Christopher H. Sharman, *China Moves Out: Stepping Stones Toward a New Maritime Strategy*, Washington, DC: Institute for National Strategic Studies, National Defense University, April 2015, pp. 36-39.

72. *Ibid.*, pp. 21-22.

73. *Ibid.*, pp. 26-27.

74. *Ibid.*, p. 25.

75. Cai Fengzhen (蔡风震) and Tian Anping (田安平), *et al.*, pp. 141-145.

76. *Ibid.*, p. 142.

77. Dai Qingmin (戴青民), "Lun Wangdian Yiti Zhan" ("论网电一体战") ("On Integrating Network Warfare and Electronic Warfare"), *Zhongguo Junshi Kexue* (中国军事科学) (*China Military Science*), February 1, 2002, pp. 112-117.

78. Wendell Minnick, "Chinese See Intel, Surveillance Role for Airships," *Defense News*, March 31, 2010, available from [archive.defensenews.com/article/20100531/DEFBEAT06/5310306/Chinese-See-Intel-Surveillance-role-airships](http://archive.defensenews.com/article/20100531/DEFBEAT06/5310306/Chinese-See-Intel-Surveillance-role-airships).

79. *Ibid.*

80. U.S.-China Economic and Security Review Commission (USCC), *2014 Report to Congress*, Washington, DC: Government Printing Office, November 2014, pp. 311-312.

81. *Ibid.*, pp. 291-292.

82. Mark Stokes, "China's Quest for Joint Aerospace Power: Concepts and Future Aspirations," in Richard P. Hallion, *et al.*, eds., *The Chinese Air Force: Evolving Concepts, Roles, and Capabilities*, Washington, DC: National Defense University Press, 2012, pp. 50-51.

83. USCC, p. 284.

84. *Ibid.*

85. AFP, "First China Air Force Drills in 'Far Offshore' Pacific," March 31, 2015, available from <https://www.yahoo.com/news/first-china-air-force-drills-far-offshore-pacific-051102692.html?ref=gs>.

86. *Ibid.*

87. *Ibid.*

88. The author thanks Christopher Sharman for his insights on these operations.

89. Unattributed, "Qianxi Zhongguo Kongjun Duanban: Zhandou Soujiu Nengli Changqi Bu Zu" ("浅析中国空军短板：战斗搜救能力长期不足") ("PLA Air Force Shortcomings in Long-Range Search and Rescue"), *Chinanet*, December 30, 2013, available from [military.china.com/critical3/27/20131230/18252427.html](http://military.china.com/critical3/27/20131230/18252427.html).

90. *Ibid.*

91. *Ibid.*

92. Maj. Gen. P. JS. Sandhu, *China's Quest for Global Dominance: Reality or Myth*, New Delhi, India: Vij Books, 2010, pp. 181-182. Also see Dennis J. Blakso, *The Chinese Army Today: Tradition and Transformation for the 21st Century*, 2nd Edition, New York: Routledge, 2012.

93. "Mission Action 2010 Transregional Joint Exercise," *China Daily*, November 25, 2010; "The Chinese Army Today, Deep-Rooted Peacetime Practices Out of Training Grounds," *Zhongguo Qingnian Bao Online*, in Chinese, available from [chinadaily.com.cn/china/2010-11/25/content\\_11607284.htm](http://chinadaily.com.cn/china/2010-11/25/content_11607284.htm); also see "Shiming Xingdong 2010A Shibing Shidan Yanlian zaai Dongbei Daxiang" ("使命行动—2010A实兵实弹演练在东北打响") ("Mission Action 2010A Realistic Live Fire Field Exercise Training in Northeast China Begins"), *Xinhua*, October 21, 2010, available from [wzdaily.66wz.com/wzrb/html/2010-10/21/content\\_772071.htm](http://wzdaily.66wz.com/wzrb/html/2010-10/21/content_772071.htm).

94. “2014年之中国军演：把和平积习赶出训练场” (“China’s Military Exercises in 2014: Driving Deep-Rooted Peacetime Practices Out of Training Grounds”), *Gansu Daily*, December 26, 2014, p. 9.

95. *Ibid.*

96. “Huoli 2014 Xilie Yanxi Chengxian 7 Tedian” (“火力2014系列演习呈现7个特点”) (“Firepower Strike 2014 Series of Exercises Have 7 Special Features”), *Jiefangjun Bao* (解放军报) (*PLA Daily*), September 25, 2014, p. 1.

97. “Ju Li bushi Zhang Ai, Kua Yue 4500 Gongli de Xinfu” (“距离不是障碍，跨越4500公里的幸福”) (“Long distance is Not an Obstacle, the Happiness of a 4,500 Kilometer Stride”), *Jiefangjun Bao* (解放军报) (*PLA Daily*), August 4, 2014, p. 10.

98. Zhao Dan, Guo Zheng, and Yu Yi, “PLA AF Airborne Corps Air Transport Regiment Long-Term Success With Long-Range Airdrops Examined,” *Kongjun Bao* (空军报) (*PLA Air Force Daily*), May 8, 2014, p. 3.

99. *Ibid.*

100. *Ibid.*

101. Department of Defense, Defense Intelligence Agency, *Directory of PRC Military Personalities*, Washington, DC: Defense Intelligence Agency, 2014, p. 75.

102. See Lieutenant General J.S. Bajwa, *Modernization of the Chinese PLA: From Massed Militia to Force Projection*, New Delhi, India: Lancer Publishers, 2014; and Richard J. Fisher, Jr., *China’s Gathering Amphibious and Airborne Expeditionary Capabilities*, Alexandria, VA: International Strategy and Assessment Center, 2012, pp. 27-29, available from [strategycenter.net/docLib/20120612\\_China-ExpedCapMay2012.pdf](http://strategycenter.net/docLib/20120612_China-ExpedCapMay2012.pdf).

103. Richard D. Fisher, Jr., “China’s KJ-500 AEW&C Platform ‘Enters Service,’” *Jane’s Defence Weekly*, March 24, 2015, available from [janes.com/article/50136/china-s-kj-500-aw-c-platform-enters-service](http://janes.com/article/50136/china-s-kj-500-aw-c-platform-enters-service).

104. *Ibid.*

105. *Ibid.*

106. *Ibid.*

107. Phillip C. Saunders and Eric Quam, "Future Force Structure of the Chinese Air Force," January 2007, p. 399, available from [https://www.researchgate.net/publication/254927824\\_The\\_Future\\_Force\\_Structure\\_of\\_the\\_Chinese\\_Air\\_Force](https://www.researchgate.net/publication/254927824_The_Future_Force_Structure_of_the_Chinese_Air_Force).

108. U.S. Air Force Fact Sheet, *E-3 Sentry (AWACS)*, available from [www.tinker.af.mil/library/factsheets/factsheet\\_print.asp?fsID=6807](http://www.tinker.af.mil/library/factsheets/factsheet_print.asp?fsID=6807).

109. *E-2C Hawkeye, Federation of American Scientists*, available from [fas.org/man/dod-101/sys/ac/e-2.htm](http://fas.org/man/dod-101/sys/ac/e-2.htm).

110. Liu Wei (刘伟), Wang Zhongyuan (王忠远), and Wang Mingjiang (王令江), *Zhanqu Lianhe Zhanyi Zhihui Gailun (战区联合战役指挥概论) (Outline of Theater of War Campaign Joint Command and Control)*, Beijing, China: National Defense University Publishing House, 2003, pp. 72-89.

111. *Ibid.*, p. 88.

112. *Ibid.*, p. 185.

113. Larry M. Wortzel, *The Dragon Extends its Reach: Chinese Military Power Goes Global*, Washington, DC: Potomac Books, 2013, pp. 134-135, 210 note 3.

114. Li Rongchang (李荣常), Cheng Jian (程建), and Zhang Lianqing (郑连清), pp. 94-96.

115. U.S.-China Economic and Security Review Commission, "Developments in China's Military Force Projection and Expeditionary Capabilities," Hearing on Thursday, January 21, 2016, Washington, DC, Room 106 of Dirksen Senate Office Building, transcript available from [origin.www.uscc.gov/sites/default/files/transcripts/Hearing%20Transcript\\_01.21.16.pdf](http://origin.www.uscc.gov/sites/default/files/transcripts/Hearing%20Transcript_01.21.16.pdf).

116. Zhang Wenyong (张文翥), “‘Tixi Huitan’: Zhanfa Qianxi” (“‘体系毁瘫’战法浅析”) (“Brief Analysis of ‘System-of-Systems Destruction and Paralysis’ Tactics”), *Zhanyou Bao* (战友报) (*Comrade in Arms Daily*), November 14, 2014, p. 3b.

117. *Ibid.*

118. *Ibid.*

119. Fu Anzhen (付安镇), Yang Chuncai (杨春才), and Lu Huling (卢慧玲), “Qianxi Meiguo Dingxiang Neng Wuqi de Zuo zhan Moshi” (“浅析美军定向能武器的作战模式”) (“Analysis of Operational Models of U.S. Military Directed Energy Weapons”), *Feihang Daodan* (飞航导弹) (*Winged Missile Journal*), No. 11, 2013, pp. 40-44.

120. *Ibid.*, p. 40.

121. Oki Nagai, “Chinese Military: Xi Advances Plan to restructure the Armed Forces,” *Nikkei Asian Review*, November 26, 2015, available from [asia.nikkei.com/Politics-Economy/Policy-Politics/Xi-advances-plan-to-restructure-armed-forces](http://asia.nikkei.com/Politics-Economy/Policy-Politics/Xi-advances-plan-to-restructure-armed-forces).

122. *Ibid.* Also see Bai Ruixue (白瑞雪) and Wang Jingguo (王经国), “以中央军委改革工作会议召开为标志” (“The Historic Reform of China’s Military Structure Starts”), 新华社 (Xinhua News Agency), Beijing, China, November 26, 2015.

123. David M. Finkelstein, *Initial Thoughts on the Reorganization and Reform of the PLA*, Alexandria, VA: CNA Corporation, January 15, 2016, pp. 13-14.

124. *Ibid.*, pp. 15-16.

125. *Ibid.*, p. 14.

126. U.S.- China Economic and Security Review Commission, “Developments in China’s Military Force Projection and Expeditionary Capabilities,” Hearing on Thursday, January 21, 2016, Washington, DC, Room 106 of Dirksen Senate Office Building, p. 49, transcript available from [origin.www.uscc.gov/sites/default/files/transcripts/Hearing%20Transcript\\_01.21.16.pdf](http://origin.www.uscc.gov/sites/default/files/transcripts/Hearing%20Transcript_01.21.16.pdf).

127. Jiang Yamin (蒋亚民), *Yuan Zhan* (远战) (*Long-Distance Operations*), p. 85.

128. *Ibid.*, pp. 215-230.

**U.S. ARMY WAR COLLEGE**

**Major General William E. Rapp  
Commandant**

\*\*\*\*\*

**STRATEGIC STUDIES INSTITUTE  
and  
U.S. ARMY WAR COLLEGE PRESS**

**Director  
Professor Douglas C. Lovelace, Jr.**

**Director of Research  
Dr. Steven K. Metz**

**Author  
Dr. Larry M. Wortzel**

**Editor for Production  
Dr. James G. Pierce**

**Publications Assistant  
Ms. Denise J. Kersting**

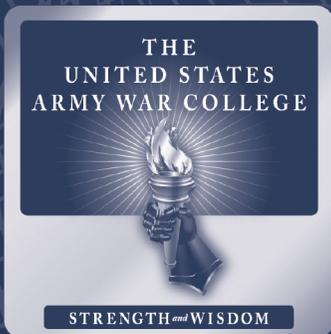
\*\*\*\*\*

**Composition  
Mrs. Jennifer E. Nevil**





**U.S. ARMY**



FOR THIS AND OTHER PUBLICATIONS, VISIT US AT  
<http://www.carlisle.army.mil/>

ISBN 1-58487-729-4



9 781584 1877295

9 0000 >



This Publication



SSI Website



USAWC Website