



LUND UNIVERSITY

Modern Military Technology in Counterinsurgency Warfare: The Experience of the Nationalist Army during the Chinese Civil War

Cheng, Victor

2007

[Link to publication](#)

Citation for published version (APA):

Cheng, V. (2007). *Modern Military Technology in Counterinsurgency Warfare: The Experience of the Nationalist Army during the Chinese Civil War*. (Working papers in contemporary Asian studies; No. 20). Centre for East and South-East Asian Studies, Lund University.

http://www.ace.lu.se/upload/Syd_och_sydstasienstudier/pdf/Cheng.pdf

Total number of authors:

1

General rights

Unless other specific re-use rights are stated the following general rights apply:

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal

Read more about Creative commons licenses: <https://creativecommons.org/licenses/>

Take down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

LUND UNIVERSITY

PO Box 117
221 00 Lund
+46 46-222 00 00

**Modern Military Technology in
Counterinsurgency Warfare:
The Experience of the Nationalist Army
during the Chinese Civil War**

Victor Shiu Chiang Cheng*

**Working Paper No 20
2007**

**Centre for East and South-East Asian Studies
Lund University, Sweden**

www.ace.lu.se

* Victor S. C. Cheng is a Postdoctoral Fellow at the Centre for East and South-East Asian Studies,
Lund University

WORKING PAPERS IN CONTEMPORARY ASIAN STUDIES

General editor: Professor Roger Greatrex
Assistant editor: Nina Brand

Publications in this series:

1. Is the world Ready for a Coherent ASEAN+3? / Cesar de Prado Yepes / ISBN 91-975093-0-2
2. Renegotiating Gender and Power: Women's Organizations and Networks in Politics – The China Women Mayors' Association / Qi Wang / ISBN 91-975093-1-0
3. Re-evaluating Preventive Diplomacy in Southeast Asia / J. Michael Tivayanond / ISBN 91-975093-2-9
4. The Role of Law in Contemporary Indonesia / Mason C. Hoadley / ISBN 91-975093-3-7
5. Closing the Digital Divide: Southeast Asia's Path towards a Knowledge Society / Hans-Dieter Evers and Solvay Gerke / ISBN 91-975093-4-5
6. De-colonising Indonesian Historiography / Henk Schulte Nordholt / ISBN 91-975093-5-3
7. Path Dependence, Change, Creativity and Japan's Competitiveness / Cornelia Storz / ISBN 91-975093-6-1
8. China Regaining Position as Source of Learning / Jon Sigurdson / ISBN 91-975093-7-X
9. Prospering on Crime: Money Laundering and Financial Crises / Guilhem Fabre / ISBN 91-975093-8-8
10. Implementing anticorruption in the PRC – Patterns of selectivity / Flora Sapio / ISBN 91-975093-9-6
11. Shaping the Future of Asia – Chiang Kai-shek, Nehru and China-India Relations During the Second World War Period / Guido Samarani / ISBN 91-975726-0-8
12. The Consumer Citizen in Contemporary China / Beverley Hooper / ISBN 91-975726-1-6
13. Defining Southeast Asia and the Crisis in Area Studies: Personal Reflections on a Region / Victor T. King / ISBN 91-975726-2-4
14. Women in Politics in Thailand / Kazuki Iwanaga / ISBN 91-975726-3-2
15. The Return of Piracy: Decolonization and International Relations in a Maritime Border Region (the Sulu Sea), 1959-63 / Stefan Eklöf / ISBN 91-975726-4-0
16. Youth and the State in Contemporary Socialist Vietnam / Phuong An Nguyen / ISBN 91-975726-5-9
17. In the Ancestors' Shadow: Cultural Heritage Contestations in Chinese Villages / Marina Svensson / ISBN 91-975726-6-7
18. Policies and politics underlying the path for universal access to treatment against AIDS in Cambodia / Frédéric Bourdier / ISBN 91-975726-7-5
19. Issue without Boundaries: HIV/AIDS in Southeast Asia / Kristina Jönsson / ISBN 91-975726-8-3
20. Modern Military Technology in Counterinsurgency Warfare: The Experience of the Nationalist Army during the Chinese Civil War / Victor Cheng / ISBN 91-975726-9-1

This working paper is published by the Centre for East and South-East Asian Studies, Lund University. The views expressed herein, however, are those of the author, and do not represent any official view of the Centre or its staff.

ISSN: 1652-4128

ISBN: 91-975726-9-1

Layout: Petra Francke, Lund University, Information Office

Printed in Sweden by Lund University, Media-Tryck, 2007

© Victor Shiu Chiang Cheng

Abstract

In an era in which the West is seeking effective strategies in the war against “terrorism”, the use of innovative military technology in counterinsurgency warfare has attracted attention from scholars and policy makers alike. Existing opinion contends that innovation of offensive weaponry, such as artillery, is likely to favour the stronger sides in a conflict.

However, the Nationalist/Guomindang (GMD) experience in the Chinese Civil War (1946-49) proved otherwise. Most of the offensive weapons, such as long-range artillery and tanks, imported from America proved not only ineffective in combat, but also a liability to GMD logistics. Based on newly released civil war documents from PRC and Taiwan, this working paper summarises the preliminary findings of a study on the GMD experience using modern military technology during the Chinese Civil War.

Contents

Introduction	1
GMD Military Blunders in Manchuria: American Weaponry and the Logistics Capabilities of the Chinese armies	3
GMD Armoured Warfare: The Myth of Blitzkrieg and Chinese Realities.....	6
Concluding Remarks.....	9
Bibliography	12

Introduction

In his work on the politics of violence, social theorist Anthony Giddens emphasizes the importance of new military technology to the modern nation-state. He concludes, “No state that did not possess military forces able to use the new organizational forms and the new weaponry could hope to withstand external attack from those that could muster such forces.”¹ Giddens’ assumption seems to explain an important component of the Americans’ China policy in the post World War II era. During the Chinese Civil War, the United States attempted to influence the outcome of the war by supporting the GMD regime through provision of firepower. The US was the major supplier of military equipment to the GMD, borne out by the equipping of the elite GMD armies with advanced weaponry at the end of 1945, and by August 1946, the sale of war surplus worth \$900 million at bargain price to the GMD government.² By the end of 1947, the US dispatched an Army Advisory Group to China, offering counsel to the GMD military.³

Existing studies contend that innovation of offensive weaponry, such as artillery, is likely to favour the stronger sides in a conflict. Political scientists Emily O. Goldman and Richard B. Andres have argued that large and wealthy states are more likely to utilize their larger resources base and reap benefit from the modern offensive weaponry and use it more effectively on the battlefield to subdue their weaker opponents. On the other hand, smaller and less wealthy countries tend to use defensive weaponry more effectively than the offensive weapons.⁴

In particular, Goldman and Andres use the innovation of modern artillery technology and tactics in modern European history as evidence to support their claim. They contend that the innovation of artillery allowed those biggest and wealthiest states, such as France, to wage war against its weaker and less wealthy adversaries by using artillery to attack the heavily fortified castles, fortresses and cities defended by the enemy forces. On the contrary, Goldman and Andres maintain that the innovation of fortification technology in modern Europe permitted the smaller and weaker states to take advantage of the new technology in defending their cities and castles in siege warfare against their stronger opponents. The use of innovative defensive military

¹ Anthony Giddens, *The Nation-State and Violence*. Berkeley and LA: Univ. of California Press, 1985, pp. 255-56.

² O. Edmund Clubb, *20th Century China*. 2nd ed. New York and London: Columbia University Press, 1972, p. 277.

³ Immanuel Hsu, *The Rise of Modern China*. 5th ed. New York, Oxford: Oxford University Press, p. 633.

⁴ Emily O. Goldman and Richard B. Andres, “Systemic effects of military innovation and diffusion.” *Security Studies*, 8: 4, summer 1999, pp. 79-125.

technology by these European states had great impact in the making of modern Europe: the use of fortification technology succeeded in checking the hegemony of the Hasburg Empire and stopping the Ottoman expansion.⁵

Furthermore, Goldman and Andres argue that the adoption of the offensive strategies, tactics and military doctrines was one of the main reasons of the rise of the Mongols. The use of offensive weapons such as artillery and mounted archer; and the use of offensive cavalry tactics and effective equipment for siege warfare, has contributed to the rise of the Mongol Empire. Thus, the use of innovative offensive military technology, such as artillery, seemed very effective for the stronger sides to subjugate their weaker enemies in the history of warfare in Europe and Asia.⁶

However, the GMD experience in the Chinese Civil War proved otherwise. The American weaponry proved to be a handicap to the GMD Army. As General Albert Wedemeyer observed in 1947, the American artillery was, in many cases, a logistic drain to the GMD forces. In combat, the American artillery limited the mobility of the GMD troops “in a fluid situation” and caused the GMD army officers to be overly cautious for fear of having the artillery captured by the enemy.⁷ In this sense, the GMD experience in the Chinese Civil War deserves attention.

The latest research on this topic also suggests that different states may react differently faced with the influx of innovative military technology.⁸ Thus, more document-based case studies are needed to advance our knowledge on this subject. This working paper studies the GMD experience in its counterinsurgency campaign during the Chinese Civil War by conducting research against the newly released civil war documents from Taiwan and the PRC. The first section of the paper studies the combat effectiveness of the American weapons during the GMD campaign against the armies of the Chinese Communist Party (CCP) in Manchuria in 1946. The second section examines the use of armoured warfare in the GMD counterinsurgency campaign in eastern China during the height of the Chinese Civil War in 1947. This paper seeks alternative explanations to the impact of advanced military technology on counterinsurgency strategy.

⁵ Ibid.

⁶ Ibid.

⁷ “Report to President Truman by Lieutenant General Albert C. Wedemeyer, US Army [19 September 1947],” in *China White Paper, August 1949*. Stanford, CA: Stanford Univ. Press, 1967, pp. 811-12.

⁸ See for examples, Raymond F. Hain, “The use and abuse of technology in insurgent warfare.” *Air & Space Power Journal*. Access: <http://www.airpower.maxwell.af.mil/airchronicles/cc/Hain.html>. Access date: 8 January 2007; Emily O. Goldman and Richard B. Andres, “Systemic effects of military innovation and diffusion.”

GMD Military Blunders in Manchuria: American Weaponry and the Logistics Capabilities of the Chinese armies

Soon after the end of the World War II in 1945, the CCP and the GMD sent their best troops into Manchuria in a race for territorial recovery. The GMD forces, despite their American weaponry, failed to defeat the CCP in the battle. On the GMD's military blunders in the initial stage of the Civil War in Manchuria, the performance of the GMD armies in combat has been a neglected topic by current scholarship.⁹ This section examines closely the combat records of the GMD 13th Army — the first GMD force to lose an entire regiment against CCP attack in Manchuria — and attempts to find the reasons behind its combat incompetence on the battlefield. Civil War records show that although the 13th enjoyed firepower superiority thanks to substantial artillery provided by the Americans, the technological edge over the enemy failed to boost its offensive capabilities.¹⁰ The experience of the GMD 13th Army in using American artillery confirms the philosophy that “shells do no harm when they are dropped in the wrong place.”¹¹ During a fierce battle with CCP guerrillas in February 1946, the American long-range artillery pieces of the 13th proved useless as their shells fell far behind the CCP battleline. Without effective artillery support, 1,500 GMD troops were killed in that battle.¹²

Many factors (e.g. poor instruction, bad calibration and defective equipment) could have contributed to the military fiasco, and the CCP strategy naturally affected GMD decision-making. The aim of this case study, however, is not to offer a comprehensive analysis of all these factors against the empirical process of the battle, but rather the technological dimension of the war and lessons to be learnt from the GMD military misfortunes. Most

⁹ The latest major work on the Chinese Civil War is Odd Arne Westad's *Decisive Encounters: The Chinese Civil War, 1946-1950*. Stanford: Stanford Univ. Press, 2003. Westad's work does not include some of the newly released source materials from the 1980s about the performance of the GMD armies in the war.

¹⁰ Zhongguo renmin zhengzhi xieshang huiyi quanguo weiyuanhui wenshi ziliao yanjiu weiyuanhui liaoshen zhanyi qinliji shenbianzu (The Editorial Group of “The Personal Accounts of the Liaoshen Campaign” of the Literary-Historical Source Materials Study Committee—an affiliate of the Chinese People's Political Consultative Conference, National Headquarters) eds., *Liaoshen zhanyi qingliji: yuan guomindang jiangling de huiyi* (The personal accounts of the Liaoshen Campaign by former Guomindang generals). Beijing: Zhongguo wenshi chubanshe, 1985, p. 527; Yuan Wei ed. *Shanhaiguan zhi zhan* (The battle of Shanhaiguan). Beijing: Junshi kexue chubanshe, 1989, p. 170.

¹¹ Robert H Scales, Jr. *Firepower in Limited War*. Washington, DC: National Defense University Press, 1990, p. 237.

¹² Jiang Yonghui, “Jinjun dongbei hou de diyi ge jianmie zhan.” (The first annihilation battle since our advance into the northeast), in Yuan Wei, *Xueye xiongfeng: liu zai dongbei zhanchang de jiji* (Heroic warriors in the snowy field: the northeast battlefield in our memory). Shenyang: Baishan chubanshe, 1988, p. 74.

countries continue to seek technological advantages over their adversaries, therefore this case study is as relevant today as it was in the 1940s for the GMD. The lesson to be learnt from the GMD military blunder in Manchuria in 1946 is clear: There was a gap between obtaining the advanced military technology and using it effectively on the battlefield.

The GMD officers learnt this lesson from their defeat. On 15 February, only two days after defeating the GMD 13th Army, a superior CCP force ambushed a regiment of the GMD New 22nd Division in the vicinity of Shenyang. The GMD commanders did not dispatch their units armed with heavy weapons for the relief mission. Instead, they sent as reinforcements seven infantry platoons with light weapons. The GMD rescue campaign was exceptionally successful, resulting in the retreat of the CCP besiegers after suffering substantial losses.

The GMD victory was determined by two important factors, neither of which was related to the advanced weapons diffused from America. The first was that the relief column commander was able to obtain a military map from the Division's headquarters, not provided by the American military aid, and this map proved extremely valuable. Secondly, the weather benefited the GMD. It was a full moon and a clear sky when the GMD platoons launched their campaign. The moonlight allowed the light-armed GMD troops to avoid the main road and advanced along small paths, and with the help of the map, they were able to sneak behind the CCP forces and defeat them in a surprise attack.¹³

The GMD operational success was achieved through excellent manoeuvrability of its light-armed infantry units, not through the firepower provided by the American artillery. The combat situation on the battlefield created a tactical dilemma for the GMD officers: The increased troop speed gained from using light arms would enable their troops to outmanoeuvre the CCP guerrillas, but by doing this, their forces would lose their technological superiority over the enemy.¹⁴

The reality was that a considerable number of American weapons (e.g. the US truck-drawn 105mm howitzers) and military equipment needed to be transported by vehicles but the GMD motorized logistics units were disappointing. Firstly, a large number of the GMD's American vehicles still were at depots in the rear, waiting to be repaired. Secondly, the vehicles

¹³ Li Zhen, *Mianbei guandong xiezhaji* (An Account of the Bloody Battles in Northern Burma and Manchuria). Taipei: Wuzhou chubanshe, 1978, pp. 203-06.

¹⁴ Li Daren, *Dongbei kanruan huiyi*. Taipei: Boxue chubanshe, 1979, p. 111.

frequently broke down in the muddy road conditions in Manchuria.¹⁵ Thirdly, the motorized logistics teams travelling on the main roads were easy targets for CCP army ambushes. The GMD experience in Manchuria demonstrates that in a combat situation against CCP guerrilla forces, it was military suicide to advance a truck convoy before the army's flank and rear were totally secured.¹⁶ The efficiency of modern transportation did not match logistics effectiveness for the GMD armies.

On the other hand, the GMD non-motorized logistics teams were also stretched to the limit in the face of increasing American military equipment. The reduction in the number of servicemen in some GMD army units was severe after World War II. In the case of the New First Army, it retained only one-third of its total authorized strength when it arrived in Manchuria in 1946.¹⁷ According to a CCP intelligence report, the New First Army did not reach full strength until the second half of 1947, after replenishing 5,686 rookies.¹⁸

The logistics nightmare for the GMD in Manchuria in 1946 was that its foot soldiers were forced to transport recently issued American arctic clothing on the march in mild weather. With no adequate transportation for them, the GMD army officers hired carrying coolies, commandeered pack animals, and conscripted mule carts. The overloaded baggage not only slowed the marching column, but also compromised its security.¹⁹ This explains why the American military equipment was a problem for the GMD logistics.

In reality, the GMD logistics in Manchuria relied only on pack animals. However, most of their military animals had been left in southern China. Civil war records show that the Nationalist government did not have modern

¹⁵ Shi Shui, "Yi jiu si liu nian si yue zhi wu yue xin yi jun zai Sipingjie zuozhan jingguo" (An account of operation of the New First Army at Sipingjie from April to May 1946), in Zhongguo renmin zhengzhi xieshang huiyi quanguo weiyuanhui wenshi ziliao weiyuan hui (The National Committee of Literary-Historical Source Materials Study Committee of the Chinese People's Political Consultative Conference) ed. *Wenshi ziliao cungao xuanbian* (A selection of unpublished manuscripts of literary-historical source materials). Vol. 9, chuanmian neizhan (shang) (All-out civil war, pt. one). Beijing: Zhongguo wenshi chubanshe, 2002, p. 774.

¹⁶ *Liaoshen zhanyi qinglijì: yuan guomindang jiangling de huiyi*, p. 578.

¹⁷ Liu Jingchi "Kangzhan shengli hou wo sui Chen Cheng gongzuo de huiyi" (Remembering my work under Chen Cheng after the War of Resistance). In Zhongguo renmin zhengzhi xieshang huiyi Zhejiang sheng weiyuanhui wenshi bianjibu (The Literary-Historical Source Materials Editorial Branch of the Chinese People's Political Consultative Conference, Zhejiang Provincial Committee) [eds.], *Chen Cheng zhuan* (The biography of Chen Cheng) [1991]. Beijing: Huayi chubanshe, 1991, pp. 90-106.

¹⁸ Zhonggong zhongyang dangshi ziliao zhengji weiyuanhui and Zhongguo renmin jiefangjun dang'anguan (Committee for Compiling Materials on Party History of the Central Committee of the Chinese Communist Party and the Chinese People's Liberation Army Archives) [eds] *Zhenzhong rijì: Dongbei renmin jiefangjun silingbu [1946.11-1947.12]* (Field diaries of The northeast headquarters of the Chinese People's Liberation Army [November 1946-December 1947]). Vol.1. Beijing: Zhonggong dangshi ziliao chubanshe, 1987, p. 371.

¹⁹ Ray Huang, "Some observations on Manchuria in the balance, early 1946," *Pacific Historical Review* Vol. 27, 1958, p. 163.

transport capacity and had to rely on the US. The US ships transported GMD troops to Qinhuangdao, the nearest port to Manchuria in China proper, but apparently the US shipping services did not include the livestock of the armies.²⁰ According to the field diaries of an elite GMD division, which was engaged in combat mission in Manchuria in 1946, a staggering 62 per cent of the division's logistics capabilities was lost.²¹ According to an American source, the GMD troops in Manchuria in 1946 managed to advance at an average speed of only 27-32 kilometres per day and the chance to defeat the CCP guerrillas virtually did not exist.²² The GMD failure in counterinsurgency warfare in Manchuria in 1946 vividly demonstrates logistics problems created by the advanced offensive weapons could undermine the strategic setting of a military campaign.

GMD Armoured Warfare: The Myth of Blitzkrieg and Chinese Realities

At the onset of the Chinese Civil War, the GMD Army had only three tank battalions in combat condition.²³ Although these tank units were not the dominating forces within the GMD Army, they were considered as the most lethal strike force in its counterinsurgency campaign against the CCP. Given the importance of these tanks to the GMD, the impact of having them captured by the CCP would be unimaginable, strategically and politically. Nevertheless, the GMD leaders decided to send 45 American M3A3 Stuart tanks to fight the CCP.²⁴ The decision was made in the belief the firepower and speed of modern tanks could destroy the poorly armed CCP forces without taking into account the importance of allowing their armies time to adapt to the armoured warfare tactics before these weapons were used on the battlefield.

²⁰ The logistical assistance for the Nationalist government was only the fourth priority of the US Army Department. See "Memorandum by the Director of the Office of Far Eastern Affairs (Vincent) to the Under Secretary of State (Acheson)" (20 September 1945), in United States Department of State, *Foreign Relations of the United States: Diplomatic Papers. The Far East, China, 1945-46*. Vol. 7. Washington: Department of State Publication, 1969, pp. 566-567; Odd Arne Westad, *Cold War and Revolution: Soviet-American Rivalry and the Origins of the Chinese Civil War, 1944-1946*. New York: Columbia Univ. Press, 1993, p. 93.

²¹ Guojun dang'an (Nationalist Army Archives), "Lujun xinbian shi zhenzhong riji (Xin sanshiba shi)" (Field diaries of the New Organized Army Division [The New 38th Army]). 540.4/7421.5, 1946-47. Taipei: Guofangbu shizhengju.

²² *The New York Times*, 22 and 24 May 1946.

²³ Gao Yale "Zhanche diyi tuan yange shi jiyao" (A summary of the history of development of the First Tank Regiment). In *Lujun zhanche diyi tuan nianjian* (Yearbook of the First Tank Regiment, the National Army). N. p., 1947, pp. 31-39.

²⁴ Ouyang Chongyi, "Lunan Yi-Zhao zhanyi zhong de diyi kuaisu zhongdui," (The First Mobile Column at the Yi-Zhao campaign in southern Shandong), in *Zhongguo renmin zhengzhi xieshang huiyi* (2002), p. 477.

In 1946, these tanks and two mechanized infantry and an artillery regiments formed the elite of the GMD Army — the First Mobile Column. In early October, the column was deployed as an attachment to the 26th Division and engaged in a large-scale offensive against CCP forces in southern Shandong with the strategic goal of severing the communication between the CCP areas.²⁵ At the beginning of the campaign, the GMD mechanized units advanced at a fast pace. The CCP main forces, utilizing the great tactical mobility of their light infantry, chose to disengage and left the GMD troops with no target to attack for two months.²⁶ As a result, the GMD mechanized forces and their offensive weapons were completely neutralized by the CCP tactics.

Contemporary no-target principle and dispersion deployment models proposed by non-offensive defence (NOD) strategists are similar to the tactics used by the CCP forces. This was because many NOD advocates, particularly those of the 1980s, have been inspired by the strategies and tactics proposed by the great guerrilla captains such as Thomas Edward Lawrence, Mao Zedong, Josip Broz Tito, Vo Nguyen Giap, and Ernesto Che Guevarra. In fact, many strategies and tactics adopted by the NOD proponents are very similar to those used in guerrilla warfare.²⁷

Firstly, both guerrilla and NOD strategists support the use of “asymmetrical strategies” through which countering the enemy’s armed forces by different means (e.g. the use of anti-tank weapons against enemy’s tanks and countering enemy air attacks via air defence guns and missiles). Secondly, both NOD and guerrilla strategists seek to avoid decisive battles by widely distributing forces across a vast territory. In combat, both seek to use attrition as a strategy in a protracted war. Finally, both emphasize the significance of the tactical manoeuvrability of the armed force while the strategic mobility of the army is relegated to secondary importance.²⁸

Nevertheless, the main purpose of modern NOD is to enhance survivability and make your enemy’s pre-emptive attack less rewarding by placing your armed forces in small units over an extended area. The sole rationale of NOD is enhancing defence efficacy by adopting the strategy of dispersion. This strategy is to spread important military facilities such as “airfields, missile sites and troop assembly points” over an extended area. By

²⁵ Ouyang Chongyi (2002), p. 482; Rong Yingkui, “Zhengbian di ershiliu shi bei jian ji” (The demise of the Reorganized 26th Division), in *Zhongguo renmin zhengzhi xieshang huiyi* (2002), p. 475; Su Yu, “Lunan dajie” (The great victory in southern Shandong), in *Junshi xueshu zazhi she* (Military academic magazine) ed., *Zhengrong suiyue* (The eventful years). Beijing: Junshi kexue chubanshe, 1985, p. 161.

²⁶ Ouyang Chongyi (2002), pp. 478-79.

²⁷ Bjørn Møller, *Dictionary of Alternative Defense*. Boulder, CO: Lynne Rienner, 1995, pp. 158-59.

²⁸ *Ibid.*

presenting fewer concentrated targets to the enemy forces, the purpose of NOD is to remove the enemy's incentive for pre-emptive strikes.²⁹ As events unfolded, CCP forces proved that they could achieve well beyond the expectations of modern NOD proponents.

The first major difference between the CCP strategy and current NOD concepts was that the former was able to break the speed of the modern armoured vehicles and force the enemy commanders to make flawed decisions. As the enemy was nowhere to be seen, the GMD commanders decided to halt the advance of their mechanized force and placed their tanks and artillery at the centre of a heavily fortified position.³⁰ The decision reduced the mechanized force to no more than a stationary fortress, defeating entirely the purpose of using the mechanized units as a mobile attacking force.

The second distinction between the CCP command decision and current NOD strategies was that in launching a counteroffensive, the CCP armies were able to shift deployment of their forces from dispersion to concentration in a very short period of time whereas the latter gives the enemy greater warning.³¹ In this case, the CCP commander was able to amass 70,000 troops in a fortnight and launched a surprise attack against the GMD mechanized forces after attaining numerical superiority.³² The GMD stationary tanks and artillery were trapped by their own blockade and became sitting targets for the CCP troops.³³ The GMD suffered a catastrophic defeat losing its American armed division and the mechanized column of 30,000 men.³⁴

Remnants of the defeated GMD troops and their tanks retreated to the rural town of Yi in southern Shandong and made use of its ancient city walls to fortify their positions. The desire to use tanks as defensive weapons induced the GMD commanders to make another mistake: they put the tanks on top of

²⁹ Ibid, p. 114; pp. 242-45; p. 251.

³⁰ Ouyang Chongyi (2002), p. 480; Donald S. Detwiler and Charles B. Burdick eds, *War in Asia and the Pacific, 1937-1949*. Vol. 15. New York: Garland, 1980, p. 89.

³¹ Bjørn Møller (1995), p. 114.

³² Detwiler and Burdick (1980), p. 87.

³³ Ouyang Chongyi (2002), pp. 480-82; Cai Shiqing, "Yinian lai zhi kanluan zhanduo" (The war of rebellion suppression in last year), in *Lujun zhanche diyi tuan nianjian*, 1947, pp. 40-44.

³⁴ Li Zongxuan, "Zhengbian di ershiliumi shi ji kuaisu zongdui zai Lunan Lanling bei jian jingguo" (An account of the demise of the Reorganized 26th Division and the [attached] Fast Column at Lanling, southern Shandong), in *Zhongguo renmin zhengzhi xieshang huiyi* (2002), pp. 489-90; Detwiler and Burdick (1980), pp. 87-88; Guofangbu shizhenju [Bureau of Historical Compilation and Translation, Ministry of National Defense] [ed.] (1975-84) *Kanluan zhanshi* (A history of rebellion suppression). Taipei: Guofangbu shizhenju. Vol. 7, pp. 121-23; Zhonggong Jiangsu shengwei dangshi gongzuo bangongshi (Office for Party History of the Jiangsu Branch Committee of the CCP) [ed.] (2006) *Su Yu nianpu* (The chronological biography of Su Yu). Beijing: Dandai Zhongguo chubanshe, p. 215.

the gate towers of the city wall via the road attached to the rampart.³⁵ Although this ensured the tanks were deployed at secure vantage points, it reduced them to mounted batteries similar to those on city towers in the Imperial Age. When the CCP forces launched an assault, the GMD's stationary tanks lacked combat effectiveness and fell into enemy hands.³⁶

The GMD operational failure confirms the assumption that weapons carried by troops were more useful than large, complex offensive weapons, in terms of defence efficiency.³⁷ Perhaps because of this, Chiang Kaishek changed his perception of armoured warfare in the wake of the defeat. In a speech, Chiang told his tank battalion officers that the function of modern tanks was nothing more than “offering protection to vehicles transporting troops”.³⁸ Chiang also showed his distrust of modern artillery. In late 1947, he instructed one of his field commanders to shift “all the heavy weapons” to the rear. In his directive, Chiang condemned the use of large and complex weapons as “extremely harmful” and “contradictory” to the “tactical principles of the war of bandit suppression at the present stage”.³⁹

Concluding Remarks

“Weapons don't make war.” A nation should adopt weapons acquisition programs with clear policy and strategy guidance.⁴⁰ However, the GMD experience in the Chinese Civil War has demonstrated that realities in a war often are not the way we expected. The GMD leaders, with a mentality similar to Hilaire Belloc's Captain Blood, “whatever happens, we have got the Maxim gun, and they have not”,⁴¹ were eager to use their imported American

³⁵ Li Weijie, “Su-Lu-Yu suijing zuozhan zhong zhanche shiyong zhi jiantao” (The use of tanks in the war of pacification at Jiangsu, Shandong and Henan: a review), in *Lujun zhanche diyi tuan nianjian*, 1947, pp. 55-56.

³⁶ *Kanluan zhanshi*, Vol. 7, pp. 123-24; Ouyang Chongyi (2002), p. 483; cf. Geng Routian, *Zhonggou jiaofei kanluan zhanshi yanjiu* (A study of the history of bandit suppression in Republican China). Taipei: Lujun zongsilingbu, Guofanbu zuozhancanmou cizhangshi, 1981, Vol. 3, pp. 7-8.

³⁷ Bjørn Møller (1995), p. 251.

³⁸ Chiang Kaishek, “Kuaisu zongdui zhi texing ji qi shi yong zhi fangfa” (The special characteristics of the fast column and its employment) [10 March 1948], in Qin Xiaoyi ed. *Xian zongtong Jiang gong sixiang yanlun zongji* (A complete collection of the thoughts and speeches of late president Chiang Kaishek). Taipei: Zhongguo guomindang zhongyang weiyuanhui dangshi weiyuanhui, 1984, Vol. 22, pp. 415-18.

³⁹ Chiang Kaishek, “Zhi Hu Lian junzhang han zhishi jiaofei jiyi” (A letter to army commander Hu Lian on the principles of action of the war of bandit suppression) [21 November 1947], in Qin Xiaoyi ed. (1984), Vol. 37, p. 366.

⁴⁰ Colin S. Gray, *Weapons Don't Make War: Policy, Strategy, and Military Technology*, Lawrence, Kan: Univ. of Kansas Press, 1993.

⁴¹ Quote in Michael Howard, “The Forgotten Dimension of Strategy.” *Foreign Affairs*, 57 (summer 1979), pp. 975-86.

weapons before their armies fully adapted to the innovations. In the end, the modern weapons, particularly the offensive weapons, overloaded the logistics capabilities of their armies and constrained GMD strategy formulation. The GMD case shows not only that the speed and firepower of modern offensive weapons could be neutralized by adversaries' guerrilla tactics, but also warns against the unrealistic expectation that firepower can compensate for bad strategy.⁴²

Nevertheless, this study bolsters the contention that a weapons system designed specifically to fight a particular enemy will not be an automatic benefit in the hands of a different army in a different war.⁴³ The reality was that China's poor interior infrastructure and antiquated military thinking simply did not support the use of large and complex weapon systems.⁴⁴

At the present, China relies heavily on imported modern weapons and technical support to achieve its strategic goal. A report on PRC military power to the United States Congress in 2004, titled "FY04 Report to Congress on PRC Military Power", shows that the former Soviet Union states (FSU), such as Russia, Ukraine and Belarus are China's chief sources of weaponry and military materiel. According the report, "arms agreement between China and FSU governments since 1991 total \$20 billion, with actual deliveries to date estimated at \$12 billion."⁴⁵ The report shows that China is particularly interested in importing the most advanced weaponry, such as the state-of-the-art aerospace weapons from the FSU. The report stated, "In 2003, China's primary focus was aerospace buildup, spending more than \$1 billion dollars on 24 Russian advanced fighter aircraft alone."⁴⁶

However, the same report also reveals that PRC is currently facing challenges in incorporating the newly acquired weaponry into the military.⁴⁷ Most recently, Beijing released its National Defence White Paper 2006. Not surprisingly, the White Paper states that the acquisition of high-tech military technology is one of the top priorities in PRC's national defence policies. In particular, in Section VIII of the White Paper, titled "Science, Technology

⁴² Raymond F. Hain (1999), p. 18.

⁴³ Herman Kahn, *Thinking about the Unthinkable*. New York: Avon Books, 1962, p. 80.

⁴⁴ Chang Jui-te, "The National Army from Whampoa to 1949," in David A. Graff and Robin Higham eds., *A Military History of China*, Boulder: Westview Press, 2002, pp. 193-209.

⁴⁵ "FY04 Report to Congress on PRC Military Power."

Access: <http://www.defenselink.mil/pubs/d20040528prc.pdf>. Access date: 26 January 2007, pp. 29-30.

⁴⁶ *Ibid*, p. 30.

⁴⁷ *Ibid*, p. 34.

and Industry for National Defense”, China announces its intention to speed up the upgrading of the high-tech weaponry and equipment of its military.⁴⁸

As this study has shown, getting the modern weapons systems is one thing and using them to do the job effectively is quite another. How the People’s Liberation Army (PLA) deals with the difficulties in integrating modern weapons into its forces will continue to attract the attention of Western observers and policy makers.

Nevertheless, this study has shown the PLA’s demonstrated ability to shift its forces’ deployment from defensive to offensive very quickly. Although China’s National Defence White Paper 2006 declares that PRC “pursues a national defense policy which is purely defensive in nature”, it also pronounces that the PLA is currently “reinforcing national defense mobilization and reserve force building to enhance its capabilities of rapid mobilization, sustained support, comprehensive protection”. More importantly, the White Paper enunciates the PLA’s commitment to enhance the “swift shift from a peacetime to wartime footing” of its forces.⁴⁹

Recently, American Secretary of State Condoleezza Rice has repeatedly expressed her concern about Beijing’s multibillion-dollar military spending.⁵⁰ Given the emerging US-PRC global rivalries, Dr. Rice’s concern is merited in a grand strategic sense. However, in the advent of future war, the real concern for the US military is the question of how rapidly the PLA can mobilize its forces, “comprising mostly 1960s technology”⁵¹ and the newly imported weaponry.

⁴⁸ *China’s National Defense in 2006*. Beijing: Information Office of the State Council of the PRC, December 2006. Access: <http://www.china.org.cn/english/features/book/194421.htm>. Access date: 25 January 2007. This document is not paginated.

⁴⁹ *China’s National Defense in 2006*.

⁵⁰ See for example Dr. Rice’s talk concerning China’s military build-up during the Asia Pacific Economic Cooperation summit at Hanoi, Vietnam on 17 November 2006. “Rice hits military buildup”, Washington Times, 17 November 2006.

Access: <http://www.washingtontimes.com/world/20061117-103943-9046r.htm>. Access date: 26 January 2007.

⁵¹ “FY04 Report to Congress on PRC Military Power”, p. 30.

Bibliography

Cai Shiqing. “Yinian lai zhi kanluan zhanduo” (The war of rebellion suppression in last year), in *Lujun zhanche diyi tuan nianjian*, 1947, pp. 40-44.

Chang Jui-te. “The National Army from Whampoa to 1949,” in David A. Graff and Robin Higham eds., *A Military History of China*, Boulder: Westview Press, 2002.

Chiang Kaishek. “Zhi Hu Lian junzhang han zhishi jiaofei jiyi” (A letter to army commander Hu Lian on the principles of action of the war of bandit suppression) [21 November 1947], in Qin Xiaoyi ed., 1984, vol. 37, p. 366.

_____. “Kuaisu zongdui zhi texing ji qi shi yong zhi fangfa” (The special characteristics of the fast column and its employment) [10 March 1948], in Qin Xiaoyi ed., 1984, vol. 22, pp. 415-18.

China's National Defense in 2006. Beijing: Information Office of the State Council of the PRC, December 2006.

Access: <http://www.china.org.cn/english/features/book/194421.htm>.
Access date: 25 January 2007.

Clubb, O. Edmund. *20th Century China*. 2nd ed. New York and London: Columbia University Press, 1972.

Detwiler, Donald S. and Charles B. Burdick [eds.] *War in Asia and the Pacific, 1937-1949*. Vol. 15. New York: Garland, 1980.

“FY04 Report to Congress on PRC Military Power.”

Access: <http://www.defenselink.mil/pubs/d20040528prc.pdf>. Access date: 26 January 2007.

Gao Yale. “Zhanche diyi tuan yange shi jiyao” (A summary of the history of development of the First Tank Regiment). In *Lujun zhanche diyi tuan nianjian*.

Geng Routian. *Zhonggou jiaofei kanluan zhanshi yanjiu* (A study of the history of bandit suppression in Republican China). Vols 3. Taipei: Lujun zongsilingbu, Guofanbu zuozhancanmou cizhangshi, 1981.

Giddens, Anthony. *The Nation-State and Violence*. Berkeley and LA: Univ. of California Press, 1985.

Goldman, Emily and Richard B. Andres. “Systemic Effects of Military Innovation and Diffusion.” *Security Studies*, 8: 4, summer 1999, pp. 79-125.

Gray, Colin S. *Weapons Don't Make War: Policy, Strategy, and Military Technology*, Lawrence, Kan: Univ. of Kansas Press, 1993.

Guofangbu shizhenju [Bureau of Historical Compilation and Translation, Ministry of National Defense] ed. *Kanluan zhanshi* (A history of rebellion suppression). Vol. 7. Taipei: Guofangbu shizhenju, 1975-84.

Guojun dang'an (Nationalist Army Archives). “Lujun xinbian shi zhenzhong riji (Xin sanshiba shi)” (Field diaries of the New Organized Army Division [The New 38th Army]), 1946-47. 540.4/7421.5. (Archival

sources are catalogued by gangmu [record group] and danghao [file]). Taipei: Guofangbu shizhengju.

Hain, Raymond F. "The use and abuse of technology in insurgent warfare." *Air & Space Power Journal*.

Access: <http://www.airpower.maxwell.af.mil/airchronicles/cc/Hain.html>.
Access date: 8 January 2007.

Howard, Michael. "The Forgotten Dimension of Strategy." *Foreign Affairs*, 57 (summer 1979), pp. 975-86.

Huang, Ray. "Some observations on Manchuria in the balance, early 1946," *Pacific Historical Review* 27, 1958, pp. 159-69.

Hsu, Immanuel. *The Rise of Modern China*. 5th ed. New York, Oxford: Oxford University Press.

Jiang Yonghui. "Jinjun dongbei hou de diyi ge jianmie zhan" (The First annihilation battle since our advance into the northeast), in Yuan Wei, *Xueye xiongfeng: liu zai dongbei zhanchang de jiyi* (Heroic warriors in the snowy field: the northeast battlefield in our memory). Shenyang: Baishan chubanshe, 1988, pp. 65-80.

Kahn, Herman. *Thinking about the Unthinkable*. New York: Avon Books, 1962.

Li Daren. *Dongbei kanruan huiyi*. Taipei: Boxue chubanshe, 1979.

Li Weijie. "Su-Lu-Yu suijing zuozhan zhong zhanche shiyong zhi jiantao" (The use of tanks in the war of pacification at Jiangsu, Shandong and Henan: a review), in *Lujun zhanche diyi tuan nianjian*, 1947, n. p., pp. 55-63.

Li Zhen. *Mianbei guandong xiezhaji* (An Account of the Bloody Battles in Northern Burma and Manchuria). Taipei: Wuzhou chubanshe, 1978.

Li Zongxuan. "Zhengbian di ershiliu shi ji kuaisu zongdui zai Lunan Lanling bei jian jingguo" (An account of the demise of the Reorganized 26th Division and the [attached] Fast Column at Lanling, southern Shandong), in *Zhongguo renmin zhengzhi xieshang huiyi*, 2002, pp. 489-93.

Liu Jingchi. "Kangzhan shengli hou wo sui Chen Cheng gongzuo de huiyi" (Remembering my work under Chen Cheng after the War of Resistance", in *Zhongguo renmin zhengzhi xieshang huiyi Zhejiang sheng weiyuanhui wenshi bianjibu* (The Literary-Historical Source Materials Editorial Branch of the Chinese People's Political Consultative Conference, Zhejiang Provincial Committee) [eds.], *Chen Cheng zhuan* (The biography of Chen Cheng). Beijing: Huayi chubanshe, 1991, pp. 90-106.

Lujun zhanche diyi tuan nianjian (Year book of the First Tank Regiment, the National Army). N. p., 1947.

"Memorandum by the Director of the Office of Far Eastern Affairs (Vincent) to the Under Secretary of States (Acheson)" (20 September 1945), in United States Department of States, *Foreign Relations of the United States: Diplomatic Papers. The Far East, China, 1945-46*. Vol. 7. Washington: Department of State Publication, 1969, pp. 566-567.

Møller, Bjørn. *Dictionary of Alternative Defense*. Boulder, CO: Lynne Rienner, 1995.

The New York Times. New York, 1946.

Ouyang Chongyi. "Lunan Yi-Zhao zhanyi zhong de diyi kuaisu zhongdui" (The First Mobile Column at the Yi-Zhao campaign in southern Shangdong), in *Zhongguo renmin zhengzhi xieshang huiyi*, 2002, pp. 477-83.

Qin Xiaoyi [ed.]. *Xian zongtong Jiang gong sixiang yanlun zongji* (A complete collection of the thoughts and speeches of late president Chiang Kaishek). Vols 22 and 37. Taipei: Zhongguo guomindang zhongyang weiyuanhui dangshi weiyuanhui, 1984.

"Report to President Truman by Lieutenant General Albert C. Wedemeyer, U. S. Army (19 September 1947)," in *China White Paper, August 1949*. Stanford, CA: Stanford Univ. Press, 1967, pp. 764-814.

"Rice hits military buildup", *Washington Times*, 17 November 2006.

Access: <http://www.washingtontimes.com/world/20061117-103943-9046r.htm>.

Access date: 26 January 2007.

Rong Yingkui. "Zhengbian di ershiliu shi bei jian ji" (The demise of the Reorganized 26th Division), in *Zhongguo renmin zhengzhi xieshang huiyi*, 2002, pp. 475-76.

Scales, Robert H Jr. *Firepower in Limited War*. Washington, DC: National Defense University Press, 1990.

Shi Shui. "Yi jiu si liu nian si yue zhi wu yue xin yi jun zai Sipingjie zuozhan jingguo" (An account of operation of the New First Army at Sipingjie from April to May 1946), in *Zhongguo renmin zhengzhi xieshang huiyi*, 2002: 771-76.

Su Yu. "Lunan dajie" (The great victory in southern Shangdong), in *Junshi xueshu zazhi she* (Military academic magazine) ed., *Zhengrong suiyue* (The eventful years). Beijing: Junshi kexue chubanshe, 1985, pp. 159-175.

Westad, Odd Arne. *Cold War and Revolution: Soviet-American Rivalry and the Origins of the Chinese Civil War, 1944-1946*. New York: Columbia Univ. Press, 1993.

_____. *Decisive Encounters: The Chinese Civil War, 1946-1950*. Stanford: Stanford Univ. Press, 2003.

Yuan Wei [ed.] *Shanhaiguan zhi zhan* (The battle of Shanhaiguan). Beijing: Junshi kexue chubanshe, 1989.

Zhonggong Jiangsu shengwei dangshi gongzuo bangongshi (Office for Party History of the Jiangsu Branch Committee of the CCP) [ed.] *Su Yu nianpu* (The chronological biography of Su Yu). Beijing: Dandai Zhongguo chubanshe, 2006.

Zhonggong zhongyang dangshi ziliao zhengji weiyuanhui and Zhongguo renmin jiefangjun dang'anguan (Committee for Compiling Materials on Party History of the Central Committee of the Chinese Communist Party and the Chinese People's Liberation Army Archives) [eds.] *Zhenzhong rijì: Dongbei renmin jiefangjun silingbu [1946.11-1947.12]* (Field diaries of The northeast headquarters of the Chinese People's Liberation Army [November

1946-December 1947]). Vol.1. Beijing: Zhonggong dangshi ziliao chubanshe, 1987.

Zhongguo renmin zhengzhi xieshang huiyi quanguo weiyuanhui wenshi ziliao weiyuanhui (The National Committee of Literary-Historical Source Materials Study Committee of the Chinese People's Political Consultative Conference) [ed.] *Wenshi ziliao cunqao xuanbian* (A selection of unpublished manuscripts of literary-historical source materials). Vol. 9, chuanmian neizhan (shang) (All-out civil war, pt. one). Beijing: Zhongguo wenshi chubanshe, 2002.

Zhongguo renmin zhengzhi xieshang huiyi quanguo weiyuanhui wenshi ziliao yanjiu weiyuanhui liaoshen zhanyi qinliji shenbianzu (The Editorial Group of "The Personal Accounts of the Liaoshen Campaign" of the Literary-Historical Source Materials Study Committee—an affiliate of the Chinese People's Political Consultative Conference, National Headquarters) [eds] *Liaoshen zhanyi qingliji: yuan guomindang jiangling de huiyi* (The personal accounts of the Liaoshen Campaign by former Guomindang generals). Beijing: Zhongguo wenshi chubanshe, 1985.