

The PLA as Organization v2.0.

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Acronyms

1LT	First lieutenant
2LT	Second lieutenant
AAA	Antiaircraft artillery
ACOGS	Assistant to the Chief of the General Staff
ADF	Air Defense Force
ADM	Admiral
AKA	Also known as
AMMS	Academy of Military Medical Science
AMS	Academy of Military Science
AOR	Area of Responsibility
ASBM	Anti-ship Ballistic Missile
ASW	Antisubmarine Warfare
ATC	Air traffic control
AVIC	Aviation Industry Corporation of China
BITTT	Beijing Institute of Tracking and Telemetry Technology
BNCC	Beijing North Computing Center
BXA	Bureau of Export Administration
C2	Command and Control
C3I	Command, control, communications, and intelligence
C4ISR	Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance
CAD	Computer Aided Design
CAEP	China Academy of Engineering Physics
CCP	Chinese Communist Party
CCTV	China Central Television
CDR	Commander
CIDEX	China International Defense Electronics Exhibition
CMC	Central Military Commission
CMSEO	China Manned Space Engineering Office
CND	Computer Network Attack
CNE	Computer Network Exploitation
CNKI	China National Knowledge Infrastructure
CNO	Computer Network Operations
COGS	Chief of the General Staff
COL	Colonel
CONUS	Continental United States
COS	Chief of Staff
COSTIND	Commission for Science, Technology, and Industry for National Defense
CP	Command Post
CPT	Captain
DCDR	Deputy Commander
DCOGS	Deputy Chief of the General Staff
DCOS	Deputy Chief of Staff
DDIR	Deputy Director
DIA	Defense Intelligence Agency

DIR	Director
DLI	Defense Language Institute
DoD	Department of Defense
DPC	Deputy Political Commissar
EAR	Export Administration Regulation
ECCM	Electronic Counter-counter Measures
ECM	Electronic countermeasures
ELINT	Electronic intelligence
EO	Electrical-optical
ESF	East Sea Fleet
GAD	General Armament Department
GCI	Ground controlled intercept
GED	General Equipment Department
GEN	General
GLD	General Logistics Department
GPD	General Political Department
GPS	Global Positioning System
GSD	General Staff Department
HAF	Headquarters Air Force (USAF)
HF	High Frequency
HQ	Headquarters
HUMINT	Human Intelligence
HVAC	Heating, Ventilation, and Air Conditioning
IAPCM	Institute of Applied Physics and Computational Mathematics
ICBM	Intercontinental Ballistic Missile
IMU	Inertial Measurement Unit
IRBM	Intermediate-range Ballistic Missile
JCCH	Joint Campaign Command Headquarters
JLD	Joint Logistics Department
JLSD	Joint Logistics Sub-department
JSLC	Jiuquan Space Launch Center
JTC	Joint Theater Command
KMT	Kuomintang (Nationalist Party)
LACM	Land Attack Cruise Missile
LSG	Leading Small Group
LTC	Lieutenant colonel
LTG	Lieutenant general
MAC	Military Affairs Commission
MAJ	Major
MAJCOM	Major Command
MASINT	Measures and signals intelligence
MD	Military District
MD	Military District
MG	Major general
MIIT	Ministry of Industry and Information Technology
MIRV	Multiple Independently Targetable Reentry Vehicle

MND	Ministry of National Defense
MOOTW	Military Operations Other Than War
MOST	Ministry of Science and Technology
MR	Military Region
MRAF	Military Region Air Force
MRB	Military Representative Bureau
MRBM	Medium-range Ballistic Missile
MRD	Military Representative Division
MRO	Military Representative Office
MSD	Military Subdistrict
MUCD	Military Unit Cover Designator
NASIC	National Air and Space Intelligence Center
NASIC	National Air and Space Intelligence Center
NATO	North Atlantic Treaty Organization
NBC	Nuclear, biological, and chemical
NBC	Nuclear, Biological, and Chemical
NCO	Noncommissioned officer
NCO	Noncommissioned Officer
NDC	National Defense Council
NDRC	National Development and Reform Commission
NDU	National Defense University
NFU	No First Use
NINT	Northwest Nuclear Technology Institute
NPC	National People's Congress
NRC	Naval Equipment Demonstration Center
NRO	National Reconnaissance Office
NSA	National Security Agency
NSF	North Sea Fleet
NUDT	National University of Defense Technology
ONI	Office of Naval Intelligence
OR	Operations Research
PAFD	People's Armed Forces Department
PAP	People's Armed Police
PC	Political commissar
PKO	Peacekeeping Operations
PLA	People's Liberation Army
PLAA	People's Liberation Army Army (Ground Forces)
PLAAF	People's Liberation Army Air Force
PLAEEI	PLA Electronics Engineering Institute
PLAN	People's Liberation Army Navy
PLASAF	People's Liberation Army Second Artillery Force
PLAUST	PLA University of Science and Technology
PME	Professional Military Education
POL	Petroleum, oils, and lubricants (e.g., fuels)
PRC	People's Republic of China
R&D	Research and Development

RADM	Rear Admiral
RDA	Research, Development, and Acquisition
RI	Research Institute
S&T	Science and Technology
SAM	Surface-to-air missiles
SAR	Synthetic Aperture Radar
SASTIND	State Administration for Science, Technology, and Industry for National Defense
SATCOM	Satellite Communications
SC	Standing Committee
SCOL	Senior colonel
SIGINT	Signals intelligence
SIGINT	Signals Intelligence
SILG	State Informatization Leading Group
SOF	Special Operations Forces
SPD	Strategic Planning Department
SRBM	Short-range Ballistic Missile
SSF	South Sea Fleet
START	Strategic Arms Reduction Treaty
TEL	Transporter erector launcher
TO&E	Table of Organization & Equipment
TRB	Technical Reconnaissance Bureau
TT&C	Telemetry, Tracking, and Control
U.S.	United States
UAV	Unmanned Aerial Vehicle
UHF	Ultra High Frequency
ULF	Ultra Low Frequency
USAF	United States Air Force
USG	United States Government
VADM	Vice Admiral
VIP	Very Important Person
VSAT	Very Small Aperture Terminal
XSCC	Xi'an Space Control Center
XSLC	Xi'an Space Launch Center

Foreword

The time period since the first PLA as Organization conference was held in 2000 and the subsequent publication of the conference volume in 2002 has seen an explosion in the number of resources, especially Internet resources, with which to analyze China's People's Liberation Army (PLA) and People's Armed Police (PAP). With the PLA and PAP undergoing a rapid modernization and changing their organizational structure to meet the demands of a new generation of weapons and equipment, as well as fighting and winning wars under informationized conditions, the ten year anniversary of the publication of the first PLA as Organization volume seemed an ideal time to take another look at the very important, but little covered topic of the PLA's and PAP's organizational structure.

From June 13-14, 2012, DGI organized a conference with some of the best minds on PLA and PAP organization issues providing their knowledge as paper writers, discussants, and conference attendees. This volume presents the outcome of that conference and includes the organizational and personnel changes that occurred in conjunction with the 18th Party Congress in November 2012. The group of authors who accepted the onerous task of delving into the minutia of the PLA's and PAP's organizational structure – cataloging the numerous units and their functions, knowing the difference between a *zhidui* and a *dadui*, and, most importantly, understanding the PLA's grades and ranks structure – spent countless hours researching their respective organizations. Their hard work has culminated in the most complete and authoritative guide to the PLA as organization since the first volume was published in 2002.

As with the first volume, this second volume is meant to be a reference guide. While some select few (and we know who you are) may be tempted to read this cover-to-cover, the vast majority of readers will gain value from this book by reading individual chapters or looking up individual organizations. With that intent, we hope that the book occupies a prominent place on people's bookshelves as they continue their study of the PLA.

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Kenneth W. Allen

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Chapter One: Introduction to the PLA's Organizational Reforms: 2000-2012

Kenneth W. Allen

The active components of the PLA can be categorized into the general headquarters/departments, the services and arms, and the military area commands. The PLA's general headquarters/departments system is composed of the General Staff Headquarters, the General Political Department, the General Logistics Department, and the General Armaments Department, which are placed under the leadership of the CMC. The CMC, through these four general headquarters/departments, directs and commands all the military area commands and the services and arms. The routine work of the Ministry of National Defense is handled, respectively, by these four general headquarters/departments.

The PLA is composed of three services - the Army (PLAA), Navy (PLAN) and Air Force (PLAAF) - and an independent arm, the Second Artillery Force (PLASAF). The Army has such arms as the infantry, artillery, armor, engineering, communications, anti-chemical warfare and Army aviation, as well as other specialized units. The Navy has such arms as the surface, submarine, naval aviation, coastal defense and Marine Corps, as well as other specialized units. The Air Force has such arms as the aviation, surface-to-air missile and antiaircraft artillery, radar, and airborne, as well as other specialized units. The Second Artillery Force is composed of the strategic missile, conventional missile, and other specialized units.

The military area commands (theaters of war) of the PLA are military organizations set up according to the state's administrative divisions, geographical locations, strategic and operational orientations, and operational tasks. Under each military area command are a number of Army combined corps, units of various arms, logistical support units, and provincial or garrison commands. At present, the PLA has seven military area commands, namely, Shenyang, Beijing, Lanzhou, Jinan, Nanjing, Guangzhou and Chengdu.

PRC Ministry of National Defense Website¹

Introduction

The information noted in the Ministry of National Defense's website above provides the essence of how the People's Liberation Army (PLA/解放军) is organized. The information not only identifies the organizations, but it also provides their protocol order within the hierarchy. Of particular note, however, is that the PLA uses different English translations than the U.S. government (USG) for some of these organizations, such as military area command instead of military region. Even the USG, however, is not consistent in its translations. To help alleviate this issue, Appendix A provides a list of key Chinese terminology used in this book along with

¹¹ <http://eng.mod.gov.cn/ArmedForces/index.htm>.

the various ways they are translated and their meaning. In addition, a list of acronyms is located at the beginning of the book.

The purpose of this chapter is to update the Introductory Chapter of *The People's Liberation Army as Organization*, which was written in 2000 and published in 2002. That chapter provided a good foundation for examining the historical background of the PLA's organizational structure. This chapter does not review the history prior to 2000, but does point out some errors from the 2000 Introductory Chapter based on new information. The primary sources of information for this chapter are shown below:

- *China Military Encyclopedia (Second Edition)*² (2006)
- *China's National Defense*³ (1998 – 2010)
- *PRC Ministry of National Defense Website*⁴ (since 2009)
- *Contemporary Military Organizational Reform Research*⁵ (2007)
- The Internet

The chapter is organized into the following 11 sections and three appendices:

- Section 1: The Foundation Organizations
- Section 2: Officer 15-Grade Structure
- Section 3: PLA Cadre
- Section 4: Noncommissioned Officer Grade and Rank Structure
- Section 5: Protocol Order
- Section 6: Military Unit Cover Designators
- Section 7: Force Reductions
- Section 8: Administrative and Functional Departments
- Section 9: Security Committees
- Section 10: Political Work System
- Section 11: Academic Institutions
- Appendix A: Key Terminology and Concepts
- Appendix B: PLA and PAP Grade and Rank Structure
- Appendix C: PLA Academic Institutions, Ministry of Education Codes, and assigned grades

Why is Understanding the PLA's Structure Important?

Why is it important to understand all of the material in this chapter? The simple answer is that it provides the basis for understanding all of the information in the remaining chapters about the PLA's organizational structure. Equally important, it provides the information necessary to

² *China Military Encyclopedia (Second Edition)* (中国军事百科全书第二版), Beijing: Encyclopedia of China Publishing House, 2006-2007.

³ *China's National Defense* (中国的国防) has been published biennially from 1998 through 2010 by the PRC State Council's Information Office. This publication is usually referred to as the defense white paper (白皮书).

⁴ <http://eng.mod.gov.cn/ArmedForces/index.htm>. This website was officially opened in August 2009.

⁵ Hu Guangzheng, ed. *Contemporary Military Organizational Reform Research* (当代军事体制变革研究), Beijing: Military Science Publishing House, October 2007.

determine what an officer's rank, grade, organization, and possible career track (technical or non-technical) is by merely looking at his uniform. Furthermore, understanding the grade system provides the foundation for understanding the PLA's command and control (vertical) and coordination (horizontal) structure. One of the biggest challenges is how best to translate PLA terminology so that non-Chinese linguists can best understand it in terms of the U.S. military system. In some cases, however, just because a Chinese term translates into an English term does not mean that they have the same meaning. For example, a PLAAF squadron consists of two to four aircraft, while a U.S. Air Force squadron consists of 15 to 24 aircraft, and a PLA ground force brigade is not the same size nor is it organized the same way as a U.S. Army brigade.

The Foundation Organizations

The first step in examining the PLA is to understand the top echelons that build the foundation for the PLA's organizational structure. According to *Contemporary Military Organizational Reform Research*, the Central Military Commission (CMC/中央军委) is responsible for leading (领导) and providing unified command (统一指挥) for China's Armed Forces, as well as determining military strategy and the operational guidelines (作战方针).⁶ The Four General Departments—General Staff Department (GSD/总参谋部), General Political Department (GPD/总政治部), General Logistics Department (GLD/总后勤部), and General Armament Department (GAD/总装备部)—serve as the administrative and functional departments (机关/部门) for the CMC and as the Army/Ground Force Headquarters (陆军领导机关). The PLA has seven Military Region HQ (MR/军区), what the PLA calls Military Area Commands, each of which is responsible for directly leading all subordinate units in its area of responsibility (AOR).⁷ With only a couple of exceptions, the MRs are based on peacetime, provincial boundaries. Each province and autonomous region is identified as a military district (MD/省军区), which are further divided into military subdistricts (MSDs/军分区).⁸

The PLA has systematically reduced the number of its MRs from 13 to 11 to 7, and has been in the process of morphing (初步成型) them to theaters (战区) since the early 2000s.⁹ Unfortunately, no explanation has been given to what morphing means; however, the implication is that, even though they still have the same provincial boundaries, more training and exercises

⁶ According to the *2002 China's National Defense*, China's Armed Forces (武装力量) consists of three components: the People's Liberation Army (PLA/中国人民解放军), which is composed of active duty Army, Navy, Air Force, and Second Artillery personnel; the People's Armed Police (PAP/人民武装警察部队); and the Reserves (预备役部队) and Militia (民兵).

⁷ *Contemporary Military Organizational Reform Research*, p. 95-97.

⁸ One of the few exceptions to the rule of MR's being composed of provinces is the Lanzhou MR, which also incorporates a small portion of Tibet, which, in turn, is part of the Chengdu MR. Although military districts are identified generically as a *shengjunqu* (省军区), such as the Henan Military District (河南省军区), not every MD has the character *sheng* (省) in the name. Specifically, autonomous regions, such as the Xinjiang Autonomous Region, is identified as the Xinjiang junqu (新疆军区), which is sometimes mistranslated as the Xinjiang Military Region.

⁹ Liu Wei, ed., *Introduction to War Zone Joint Campaign Command* (战区联合战役指挥概论), Beijing: National Defense University Press, September 2003, p. 6-7. This book provides time frames or specific years for the transition from field armies to 6 MRs (1947-195), to 12 MRs (1955-1956), to 3 MRs (1956-1967), to 11 MRs (1967-1985), and to 7 MRs (1985), but did not give any specific date for when they began or would complete changing into theater commands.

are occurring across MR borders and between headquarters in each MR/theater. Furthermore, during exercises, each MR is referred to as a theater. The stated goal is to have a command and control structure that is combined during peacetime and wartime (平战结合).¹⁰

Since around 2000, certain PLA books, as well as *China's National Defense* and the Ministry of National Defense website, have identified each of the existing seven MRs as theaters in English, such as the Beijing Theater (北京军区).¹¹ Although some media reports have indicated that the PLA will merge some of the MRs and permanently call them theaters (战区) or strategic areas (战略区), this has not yet happened.¹²

While Army personnel dominate the CMC, general departments, and military regions, the PLA also has the PLAN, PLAAF, and PLASAF. Below PLAN Headquarters are the three fleets (North Sea Fleet, East Sea Fleet, and South Sea Fleet), and below PLAAF Headquarters are seven Military Region Air Forces (MRAF), which equate to the boundaries and protocol order of the seven MRs.

The headquarters for each of the seven MRs, PLAN, PLAAF, and PLASAF, as well as their subordinate organizations down to the regiment level, have relevant administrative and functional departments that mirror the four General Departments. Figure 1 shows a comparison of the leadership and departments for the CMC and subordinate General Departments with the services, branches, and unit levels.

Figure 1: PLA Leadership and Department Comparison



¹⁰ Liao Xilong, “Personally Experiencing Jinan Theater’s Major Joint Logistics Reform,” *PLA Daily Online*, 16 December 2008.

¹¹ *China Theater Geography and Logistics Support*, Beijing: PLA Press, March 2001, sponsored by the General Logistics Departments’ Headquarters Department.

¹² Kang Juan, “Military Reshuffle Not Likely,” *Global Times (Huanqiu Shibao)* in English, 31 July 2009. Li Ping, “Talk about Reforming the Military Organizational Structure” (谈谈军队编制体制改革), Chinese Academy of Social Science, 7 March 2012. See www.cssn.cn/news/463675.htm.

Officer 15-grade Structure

As a starting point, it is important to understand that officer (cadre) grades, not ranks, are the key to understanding the PLA's organizational structure.¹³ The primary reason for this is that the grade structure, which is assigned not only to individuals and billets but also to every organization and vessel, defines the PLA's command and control (vertical) and coordination (horizontal) structure. For example, an MR can command a PLAN fleet and PLAAF MRAF, but the fleet and MRAF, which are the same grade can coordinate with each other, but neither one can command the other. This section provides some background on the rank and grade system and discusses anomalies within the system, as well as various aspects of the link between grades and ranks.

Background

Unlike the U.S. military's officer corps, which has ten ranks and ten grades that are synonymous with each other (e.g., an Air Force and Army captain are O-3s and a Navy commander and Army lieutenant colonel are O-5s), since 1988, the PLA has had 10 officer ranks and 15 grades that do not have a 1 to 1 relationship. In addition, unlike the U.S. military, the PLA assigns grades not only to officers and billets, but also to every PLA organization, including naval vessels commanded by officers but not noncommissioned officer (NCOs). This system, which all PLA services and branches use, is based on ground force terminology.

The PLA's grade system parallels the civilian government cadre system of grades. It is thus used by military and civilians alike, so that PLA officers and their government counterparts are aware of each other's place in the bureaucracy and allows organizations at the same level to coordinate with each other. It also allows officers to transfer to comparable-grade civilian positions (转业) if they leave the military before their mandatory retirement age.

There are four key differences between the U.S. military and the PLA in terms of their use of rank and grade:

- First and most importantly, in the PLA, rank is not as important as grade. Rank insignia are used primarily as a visual cue to rapidly determine where one's approximate status is within a group and for interacting with foreign militaries.
- Second, in the PLA, billets are assigned based on one's grade, not rank.
- Third, promotion in grade, not rank, is what determines how one moves up the career ladder. For example, moving from senior colonel to major general while remaining in the same grade is not as important as moving from one grade to the next, even if you retain the same rank.¹⁴
- Finally, every PLA organization, not just officers and billets, is assigned a grade. Therefore, it is the grade system that defines the vertical command and control (C2) and horizontal coordination relationship among organizations.

¹³ This information was taken from *People's Liberation Army Air Force 2010*, Dayton, OH: National Air and Space Intelligence Agency (NASIC), August 1, 2010, Chapter 2 (Organizational Structure). Hereafter identified as *PLAAF 2010*.

¹⁴ In the PLA, base pay is divided into time in service, which includes time as a cadet, time-in-grade, and time-in-rank.

Anomalies

The PLA has only a few anomalies shown below where the grade for senior officers and their organizations are not in synch:

- Although the GLD and GAD are CMC Member-grade organizations and their directors are CMC Member-grade officers, their political commissars hold the grade of MR leader
- Although the PLAN, PLAAF, and PLASAF are MR leader-grade organizations and their commanders became CMC Member-grade officers starting in 2004, their political commissars, who serve as the Party Committee secretary, are MR leader-grade officers
- In 2008, Li Andong (李安东), who was at the time one of the GAD's deputy directors, became a concurrent chairman of the GAD's Science and Technology (S&T) Committee (总装备部科技委员会). In July 2010, Li received his third star. Although GAD's deputy directors are assigned the grade of MR deputy leader, only MR leader- and CMC member-grade officers can have the rank of general. As a result, it appears that the grade of the S&T Commission was elevated and Li was given the grade of MR leader as the commission chair, even though he is still only a GAD deputy director.

Understanding the Rank-Grade Link

The importance of understanding the link between rank and grade promotions is manifested when analyzing who the PLA's senior leaders will be. According to Retired Army Colonel John Corbett, the July 2010 group of promotions to three-stars demonstrates the path to full general/admiral, which combines rank and grade promotions consisting of three observable steps:¹⁵

- Step One: Lieutenant generals (LTGs) in a Military Region (MR) deputy leader-grade *move laterally* to a second position in the same grade
- Step Two: After three or so years, they receive a *grade promotion* to an MR leader-grade position
- Step Three: After three years or so as a LTG in an MR leader-grade position, they receive a *rank promotion* to full general [Note: Since the rank-to-grade adjustment in 1994, all MR leader-grade officers in the PLA have received their third star.]

Officer Rank Categories

Figure 2 shows the 10 PLA officer ranks and their distribution within the flag-rank, field-grade, and company-grade categories. Although the rank for PLA Navy (PLAN) officers is usually translated using U.S. military terminology, such as admiral or commander, the actual PLA terminology is Navy general (海军上将) and Navy lieutenant colonel (海军中校), respectively. The PLA Air Force (PLAAF) merely adds Air Force in front of the rank, such as Air Force colonel (空军上校).

¹⁵ Kenneth Allen, "Assessing the PLA's Promotion Ladder to CMC Member Based on Grades vs. Ranks," *China Brief*, July 22, 2010 Vol 10 Issue 15 (Part 1) and August 5, 2010 Vol 10 Issue 16 (Part 2)).

Figure 2: PLA Officer Ranks and Categories

Category	PLA Ranks (All Services)
Flag-Rank Officer (将官) 	General (上将) (3 stars)
	Lieutenant General (中将) (2 stars)
	Major General (少将) (1 star)
Field-Grade Officer (校官) 	Senior Colonel (大校)
	Colonel (上校)
	Lieutenant Colonel (中校)
	Major (少校)
Company-Grade Officer (尉官) 	Captain (上尉)
	1 st Lieutenant (中尉) 2 nd Lieutenant (少尉)

Officer 15-grade System

Since 1988, *all* PLA and PAP officers and organizations have been assigned one of 15 grades. Table 1 shows the current grade and rank system as it applies to the PLA. This book uses the word “leader” rather than “commander” because, in the PLA, the commander and political officer are co-equals and have the same grade.¹⁶ Note that each grade from Military Region (MR) leader down to platoon has a primary and secondary rank (一职两衔).¹⁷ The ranks in the left column are the most common. The reason why each grade has two possible ranks is because rank and grade promotions rarely occur at the same time. Specifically, company and field grade officers receive their next higher rank about every three years and receive a promotion in grade every four years. In addition, only the uniformed, not civilian, Central Military Commission (CMC) vice chairmen are assigned grades.

¹⁶ Some USG organizations use “principal” rather than “leader”. The acronyms equivalent to the U.S. Army come from www.defense.gov/about/insignias/officer.aspx, which also has the acronyms for equivalent U.S. Air Force, Navy, and Marine ranks.

¹⁷ From 1988 to 1994, each grade had three assigned ranks (一职三衔).

Table 1: Officer Grades and Assigned Ranks

Grade	Primary Rank	Secondary Rank
CMC Chairman (军委主席) Vice Chairmen (军委副主席)*	None General	
CMC Member (军委委员)	General	
MR Leader (正大军区职)	GEN/ADM	LTG/VADM
MR Deputy Leader (副大军区职)	LTG/VADM	MG/RADM
Corps Leader (正军职)	MG/RADM	LTG/VADM
Corps Deputy Leader (副军职)	MG/RADM	SCOL/SCPT
Division Leader (正师职)	SCOL/SCPT	MG/RADM
Division Deputy Leader (副师职)	COL/CPT	SCOL/SCPT
Regiment Leader (正团职)	COL/CPT	LTC/CDR
Regiment Deputy Leader (副团职)	LTC/CDR	MAJ/LCDR
Battalion Leader (正营职)	MAJ/LCDR	LTC/LCDR
Battalion Deputy Leader (副营职)	CPT/LT	MAJ/LCDR
Company Leader (正连职)	CPT/LT	1LT/LTJG
Company Deputy Leader (副连职)	1LT/LTJG	CPT/LT
Platoon (排职)	2 LT/ENS	1LT/ENS

*Note: the chairman and civilian vice chairman are not assigned ranks.

As noted in Table 1, each grade has an assigned name, such as “division leader.” The PLA does not assign numbers to each grade. Therefore, while it is not correct to call someone a grade-3 (e.g., a Military Region leader) officer or organization, the USG often assigns numbers to each grade for simplicity sake. In addition, PLA officers are rarely referred to by their rank verbally or in the media. They are usually addressed or identified by their position, such as Deputy Commander Zhang or Operations Division Director Wang. However, when PLA delegations travel abroad or meet foreign military visitors to China, the Chinese media refer to their rank and sometimes to their position, but, because most foreigners do not understand the PLA’s grade structure, the media rarely identifies them by their grade.

Since 2007, PLA officers have worn ribbons that indicate what their grade is based on the number of rows (1 to 7), number of stars (1 is for a deputy leader and 2 is for a leader) in the center ribbon at the top, and the color of the ribbon with the star(s). Of note, although the CMC vice chairmen and CMC members have separate grades, they both have a single star. No one in the CMC has two stars. Figure 3 shows the ribbons for a corps leader-grade officer (5 rows and 2

stars), and Table 2 shows the grade, ribbon color, number of stars (1 or 2) for each grade, and the number of rows of ribbons per grade.

Figure 3: PLA Officer Ribbons (Corps Leader Grade)

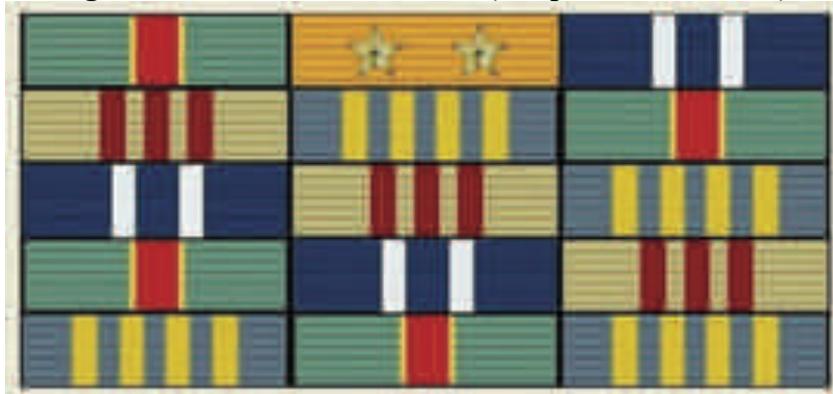


Table 2: PLA Officer Ribbons

Grade, Ribbon Color, & Stars	Rows of Ribbons
CMC Vice Chairman	7
CMC Member	7
MR Leader	6
MR Deputy Leader	6
Corps Leader	5
Corps Deputy Leader	5
Division Leader	4
Division Deputy Leader	4
Regiment Leader	3
Regiment Deputy Leader	3
Battalion Leader	2
Battalion Deputy Leader	2
Company Leader	1
Company Deputy Leader	1
Platoon Leader	1

Appendix B provides five tables showing the grade for the following types of organizations along with the ranks for the officers holding those billets:

- Four General Departments
- MR, PLAN, PLAAF, and PLASAF Headquarters
- Corps leader-grade headquarters
- Division leader-grade headquarters

- Division deputy leader-grade headquarters, which is the grade assigned to brigades.¹⁸

Officer Grade-to-Rank Relationship

While each grade has two ranks, each rank can have from one to four grades associated with it. As illustrated in Table 3, a major general can be assigned to a billet in one of four grades: military region deputy leader, corps leader, corps deputy leader, or division leader. As a result, one should not focus on the rank when discussing one's importance within the chain of command. In particular, PLA units have multiple deputy commanders and they have the same grade as the Chief of Staff (e.g. director of the Headquarters Department). As a result, a Chief of Staff can move directly to becoming the commander. For example, the current director of the General Armament Department (GAD), General Chang Wanquan, previously served as the Lanzhou MR Chief of Staff and the Beijing MR Chief of Staff before becoming the Shenyang MR commander. He did not serve as an MR deputy commander.

¹⁸ It is important to note that, in the PLA, no brigades are subordinate to a division and no brigades have subordinate regiments. One way to think about this is that a brigade is either a downsized division or an upsized regiment. Historically, brigades have been formed by expanding the size of a regiment or combining two regiments or by downsizing a division.

Table 3: PLA Ranks and Grade Relationship

Ranks/Grades	GEN	LTG	MG	SCOL	COL	LTC	MAJ	CAPT	1LT	2LT
CMC Vice Chairman	█									
CMC Member	█									
MR Leader	█	█								
MR Deputy		█	█							
Corps Leader		█	█							
Corps Deputy			█	█						
Division Leader			█	█						
Division Deputy/ Brigade Leader				█	█					
Regiment Leader/ Brigade Deputy					█	█				
Regiment Deputy						█	█			
Battalion Leader						█	█			
Battalion Deputy							█	█		
Company Leader								█	█	
Company Deputy								█	█	
Platoon									█	█
<i>Grades per Rank</i>	3	3	4	3	2	3	3	3	3	1

PLA Cadre

For outsiders, the PLA's cadre system is complicated.¹⁹ Historically, the PLA (and its predecessor the Red Army until 1948) has had two types of personnel. The first consists of cadre (干部), which is synonymous with officer (军官), and the second consists of soldiers (士兵/战士), which is synonymous with enlisted personnel who, over the decades, have either been

¹⁹ Dennis Blasko helped write this section.

volunteers (志愿兵) or conscripts (义务兵).²⁰ In addition, prior to 1949, cadre were divided into the two career tracks of military officers and political officers. The current five career tracks are discussed later.

In 1988, the PLA implemented a civilian cadre (文职干部) system to complement the 15-grade active duty officer (cadre) system. Like active duty military personnel, civilian cadre wear military uniforms; however, they wear but different rank insignia on their shoulders than officers and have their own grade system.

This section explains the grade and rank relationship between the active duty cadre and civilian cadre systems.²¹ See Appendix A for information on the different terms for grades.

Officer Career Tracks²²

The PLA has five officer career tracks for what it calls active duty officers (现役军官) as shown below. The PLA often combines the first four career tracks together to differentiate them from special technical officers (专业技术军官), but there is no official name for all the officers in the first four career tracks.²³

- Military (operational) officers (军事军官) serve as a unit commander or deputy commander down to the platoon level, as well as in staff officer billets in the General Staff Department and a lower echelon Headquarters Department down to the regiment level²⁴
- Political officers (政治军官) serve as the director or deputy director, as well as in staff officer billets in the General Political Department and a lower echelon Political Department/Division, as well as political officer billets in the battalion and company levels
- Logistics officers (后勤军官) serve as the director or deputy director, as well as in staff officer billets in the General Logistics Department and in staff officer billets in a lower echelon Joint Logistics Department and/or Logistics Department/Division, as well logistics billets down to the platoon level. The staff officer billets include finance,

²⁰ In the PLA, the General Staff Department's Military Affairs Department (军务部) serves as the enlist force personnel center, and the General Political Department's Cadre Department (干部部) serves as the officer personnel center. Of note, the PLA's term for sailor (水兵) refers to enlisted PLAN personnel only and, unlike the U.S. Navy, does not refer to officers. Furthermore, the PLA/PLAAF does not have a term for airman. PLAAF, as well as PLAN, enlisted personnel are referred to as soldiers.

²¹ "System of Cadre Grades," in *China Military Encyclopedia* (Second Edition), December 2006, *Military Cadre Work* (军队干部工作) Vol 39, p. 48-50. *People's Liberation Army Air Force Officer's Handbook* (中国人民解放军空军军官手册), Beijing: Blue Sky Press, November 2006.

²² Information on these career tracks and terminology were accessed at <http://qiming0130.blog.163.com/blog/static/7975228120119279109428/> on 5 March 2012. See also "System of Cadre Grades," in *China Military Encyclopedia* (Second Edition), December 2006, *Military Cadre Work*, Vol 39, p. 48-50.

²³ Some PLA dictionaries and encyclopedias combine military, political, logistics, and equipment officers as non-special technical officers (非专业技术军官).

²⁴ When someone is referred to as a "military officer", this means that he is in the military (operational) career track, not that he is a generic military officer.

supplies, materials, fuels, transportation, health, and barracks.²⁵

- Equipment officers (装备军官) serve as the director or deputy director, as well as in staff officer billets in the General Armament Department and a lower echelon Equipment Department/Division, as well equipment billets down to the platoon level. The staff officer billets include equipment development, support, and management.²⁶
- Special Technical officers (专业技术军官) can serve in technical billets in any of the four departments, but tend to be concentrated in equipment- and R&D-related organizations. Their specialties are divided into 16 sets (系列) with 52 categories. The 16 specialty sets include education, scientific research, engineering technology, health technology, economics and accounting, the arts, sports education, news, publishing, and broadcast, interpreting, and agricultural technology. Most sets have multiple categories within them.²⁷ Depending on their particular job, some officers move back and forth between being a special technical officer and an equipment and/or logistics officer.

Civilian Cadre Grades

Civilian cadre are found in a wide variety of jobs in research, engineering, medical, education, publishing, archives, cultural, and sports units.²⁸ The PLA's civilian cadre can be categorized as special technical civilian cadre (专业技术文职干部) and non-special technical civilian cadre (非专业技术文职干部). They are assigned one of 10 grades (级), including special grade (特级) followed by grade 1 (1级) at the top and grade 9 (9级) at the bottom. For pay purposes, these grades are equivalent to the 10 officer ranks, with special grade equating to a full general, grade 1 to a lieutenant general, and so on down to grade 9, which equates to a second lieutenant. The special technical posts (专业技术职务) for special technical civilian cadre (专业技术文职干部) are organized into three levels (级): senior (高级), intermediate (中级), and basic (初级). These three levels for special technical grades (等级) are further divided into 14 grades, which range from grade 1 (1级) at the highest to grade 14 (14级) at the bottom. These grades are equivalent to officer grades, with special technical grade 1 being equivalent to CMC member, special technical grade 2 equivalent to MR leader, and so on down to special technical grade 14 equivalent to platoon grade.

Rank Epaulets

Civilian cadre wear shoulder epaulets with one of two rank insignia shown in Figure 4. Compared to the insignia shown in Figure 5 that have 5-pointed stars, the rank insignia for civilian cadre have a six-pointed flower bud with a wreath or scroll at the shoulder edge shown

²⁵ *PLA Military Terminology* (中国人民解放军军语), Beijing: Academy of Military Science Press, September 1997, p. 340. This version does not have any English translations for the terms. In December 2011, the PLA published an updated version with English translations for each term. Both publications are "For Internal Distribution Only" (内部发行) and are simply identified as the *Junyu* (军语).

²⁶ *Ibid.*

²⁷ Dennis J. Blasko, *The Chinese Army Today: Tradition and Transformation for the 21st Century*, London and New York: Routledge, 2006, p. 63-64.

²⁸ Dennis J. Blasko, *The Chinese Army Today: Tradition and Transformation for the 21st Century*, London and New York: Routledge, 2006, p. 63-64.

in Figure 6. The epaulet on the left with the wreath is for senior grade (高级) civilian cadre, and the epaulet on the right with the scroll is for intermediate and junior civilian cadre.²⁹

Figure 4: Civilian Cadre Rank Insignia



Collar Insignia

In addition to their shoulder rank insignia, officers, civilian cadre, and enlisted personnel wear insignia on their collars. In 2007, the PLA issued new uniforms with new collar insignia, which are divided into the following types:³⁰

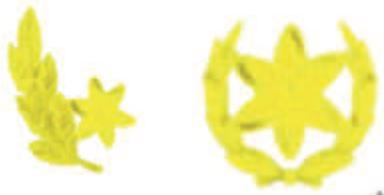
- Pine branch (松枝叶领花)
- Olive branch (橄榄叶领花)
- 5-pointed star (五星/五角星)
- 6-pointed atom (原子符号)

Officers in non-special technical billets and all enlisted personnel wear a combination of a pine branch or olive branch and a 5-pointed star. Special technical officers and special technical civilian cadre wear a combination of a pine branch or olive branch and a 5-pointed star or a 6-pointed atom. The different combinations are shown in Figures 5 and 6.

Figure 5: Insignia for Military, Political, Logistics, and Equipment Officers



Figure 6: Special Technical Officer or Civilian Cadre



For the most part, officers in the military, political, logistics, and equipment career tracks wear the star collar insignia, while technical officers and civilian cadre wear the atom. As a general

²⁹ Ibid, p. 77-78.

³⁰ Xu Ping, and Yang Tingxin, eds., History of Military Uniforms (军服史话), Beijing, Liberation Army Press, September 2009, p. 238.

rule, however, some, but not all, technical officers and civilian cadre who serve in a leadership billet, such as an office director or deputy director, wear a star.

Unit Patches

All uniformed military personnel, including officers, civilian cadre, and enlisted personnel wear a unit patch (臂章) on their left arm that identifies their organization. For example, Figure 7 shows different unit patches for the PLAAF.

Figure 7: PLA Unit Patches



Officer and Civilian Cadre Grade and Rank Comparison

Tables 4 and 5 are taken from the *PLA Air Force Officer Handbook*. Table 3 compares the grade (职务等级) for different groups of officers and civilian cadre, as well as comparing ranks for officers and civilian cadre.³¹ Table 4 compares the rank (军衔等级) for officers compared to the rank (级别) for civilian cadre.

³¹ *People's Liberation Army Air Force Officer's Handbook*, p. 162.

Table 4: Officer and Civilian Cadre Grade Comparison

Military, Political, Logistics, and Equipment Officers	Special Technical Officers and Special Technical Civilian Cadre	Non-Special Technical Civilian Cadre
CMC Chairman (军委主席) Vice Chairmen (军委副主席)	Grade 1 (1 级)	
CMC Member (军委委员)	Grade 2 (2 级)	
MR Leader (正大军区职)	Grade 3 (3 级)	MR Deputy Leader Equivalent (按副大军区职待遇)
MR Deputy Leader (副大军区职) 副大军区职)	Grade 4 (4 级)	Corps Leader Equivalent (按正军职待遇)
Corps Leader (正军职)	Grade 5 (5 级)	Corps Deputy Leader Equivalent (按副军职待遇)
Corps Deputy Leader (副军职)	Grade 6 (6 级)	Department Leader (正局级)
Division Leader (正师职)	Grade 7 (7 级)	Department Deputy Leader (副局级)
Division Deputy Leader (副师职)	Grade 8 (8 级)	Office Leader (正处级)
Regiment Leader (正团职)	Grade 9 (9 级)	Office Deputy Leader (副处级)
Regiment Deputy Leader (副团职)	Grade 10 (10 级)	Section Leader (正科级)
Battalion Leader (正营职)	Grade 11 (11 级)	Section Deputy Leader (副科级)
Battalion Deputy Leader (副营职)	Grade 12 (12 级)	Grade 1 Staff Member (一级科员)
Company Leader (正连职)	Grade 13 (13 级)	Grade 2 Staff Member (二级科员)
Company Deputy Leader (副连职)	Grade 14 (14 级)	Worker/Clerk (办事员)

Table 5: Officer and Civilian Cadre Rank Comparison

Officer Rank (军衔等级)	Civilian Cadre Rank (级别)
General (上将)	Special Grade (特技)
Lieutenant General (中将)	Grade 1 (1 级)
Major General (少将)	Grade 2 (2 级)
Senior Colonel (大校)	Grade 3 (3 级)
Colonel (上校)	Grade 4 (4 级)
Lieutenant Colonel (中校)	Grade 5 (5 级)
Major (少校)	Grade 6 (6 级)
Captain (上尉)	Grade 7 (7 级)
Second Lieutenant (中尉)	Grade 8 (8 级)
First Lieutenant (少尉)	Grade 9 (9 级)

The following bullets summarize the key differences and similarities between officers and civilian cadre:

- PLA cadre are either officers or *wenzhi ganbu*. NCOs are not considered “cadre.” Insignia of rank (or levels for civilian cadre) worn on the shoulder epaulets or collars of various uniforms distinguish officers, civilian cadre, NCOs, and conscripts/recruits from each other.
- PLA officers are classified as military (operational/军事), political (政治), logistics (后勤), equipment (装备), and specialized technical (专业技术) personnel. They are assigned one of ten ranks from second lieutenant to general. The first four classifications correspond to the four systems controlled by the GSD, GPD, GLD, and GAD. Military (operational), political, logistics, and equipment personnel (including officers, NCOs and conscripts/recruits) wear lapel and collar insignia consisting of a pine branch with a five-pointed star or a five-pointed star in a circular wreath on the summer uniform. There is no specific term used to describe military (operational), political, logistics, and equipment officers as a group. Special technical officers wear lapel and collar insignia consisting of a pine branch with a six-pointed atom (consisting of three electrons in elliptical orbits) or a six-pointed atom in a circular wreath. See Figure 6.
- Civilian cadre are classified as either non-specialized technical personnel or specialized technical personnel. They wear similar lapel and collar insignia as do PLA officers according to their classification (i.e., the five-pointed star or six-pointed atom).
- Military (operational), political, logistics, and equipment officers are assigned one of 14 grades/posts (职务等级) from platoon to CMC member. They serve as principal officers (commanders and political commissars/instructors, heads of staff departments), deputies, or staff officers within the system to which they are assigned.
- Specialized technical officers are assigned one of nine ranks (军衔) from second lieutenant to lieutenant general. *China's National Defense 2004* gives highest rank as lieutenant general for technical officers. They are NOT assigned grades, but are further classified according to technical levels (专业技术等级). The 13 technical levels (from the lowest 14 to 2, the highest) correspond/are equivalent to grades/posts from platoon to MR leader grade. They are also classified into 16 specialized technical sets with a total of 52 categories of specialties.
- Civilian cadre are NOT assigned military ranks (军衔), but are assigned one of up to 14 levels (级) according to whether they are non-specialized technical or specialized technical personnel. Specialized technical civilian cadre may be assigned levels from the lowest (14) to the highest (1). Non-specialized technical civilian cadre are assigned levels equating from 14 to 3, but use names similar to the civilian cadre grade structure (up to bureau level, equivalent to division level) and then corps deputy, corps leader, and MR deputy leader for the most senior non-specialized technical civilian cadre. These levels *correspond/are equivalent* to the grade (职务等级) system for military (operational), political, logistics, and equipment officers. Civilian cadre are also assigned one of 10 levels (级别) (in this case the words “grade” or “rank” are not appropriate, but could be called “level” or “step”) for pay purposes, but these distinctions are not visible by their epaulets or ribbons.

- In theory, a civilian cadre could be the equivalent of a general/CMC member, but a specialized technical officer could rise to no higher than lieutenant general/MR leader grade.

Noncommissioned Officer Grade and Rank Structure

Two of the most significant events in the PLA's reform of its enlisted force were the December 1998 revision to the *Military Service Law of the People's Republic of China* and the July 1999 revision of the *Regulations on Military Service of Active-Duty Soldiers*. In December 2009, the PLA implemented new reforms to the noncommissioned officer (NCO) system.³²

Prior to 1999, PLAN and PLAAF conscripts served for four years and Army conscripts served for three years. Moreover, after finishing their conscription period, all service members retained the option of remaining on active duty as “volunteers” (志愿兵) for a total service time of 16 years. The revised 1998 law and 1999 regulations:

- Reduced the mandatory service period for conscripts in all PLA services and branches to two years
- Established a standard 30-year career path for NCOs in an effort to make service in the NCO corps attractive as a potential long-term career.

In an effort to professionalize the NCO corps, the 1998 revised *Military Service Law* created a standard 30-year career path divided into six service periods. At the end of each service period, NCOs may extend their stay in the PLA by being promoted to the next higher rank; otherwise, they are demobilized and sent back to their hometown. NCOs in certain specialties, such as drivers and cooks, cannot serve beyond 12 years and are then demobilized.

In December 2009, the CMC implemented a new “Plan for Reforming the NCO System” along with three revised regulations for NCO active duty service periods, management, and education and training. The new plan and revised regulations were intended to:

- Keep the overall size of the enlisted force the same
- Increase the size of the NCO corps while reducing the size of the conscript force
- Increase the number of intermediate- and senior-grade NCOs while reducing the number of the junior-grade NCOs
- Increase the number of NCOs recruited directly from civilian college students and graduates (i.e., they do not serve two years as a conscript/volunteer before being commissioned directly as an NCO)
- Increase the education and training requirements for promotion to the next grade level
- Increase the salary and benefits for intermediate and senior NCOs
- Allow NCOs to serve beyond 30 years if necessary.

According to *The Chinese Army Today*, the new plan and revised regulations changed the name for each of the ranks, as well as added a third rank in the senior grade NCO level. In terms of service periods, the new plan and revised regulations allows for NCOs to serve for more than a

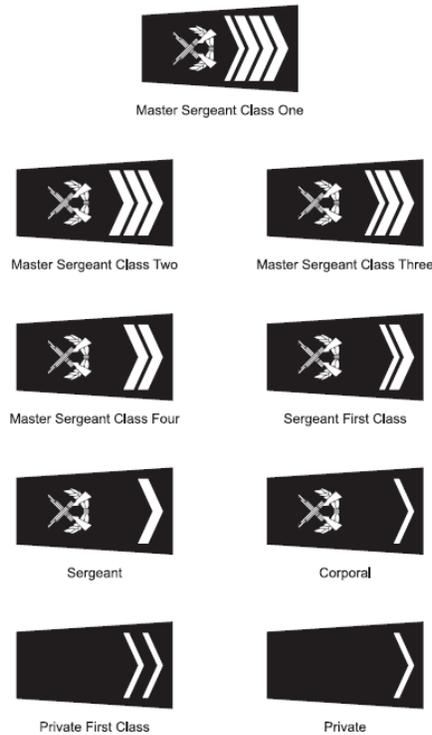
³² *PLAAF 2010*, Chapter 4 (Enlisted Force).

total of 14 years in the senior grade NCO grade. Table 6 shows the revised NCO system and Figure 8 shows the NCO rank insignia, as well as Private First Class and Private Second Class for the first two year conscripts/recruits.³³

Table 8: PLA NCO Grades and Ranks as of 2009

Grade Level	Rank	Time in Service
Junior Grade NCO	Corporal (下士)	3 Years
	Sergeant (中士)	3 Years
Intermediate Grade NCO	Sergeant First Class (上士)	4 Years
	Master Sergeant Class Four (四级军士长)	4 Years
Senior Grade NCO	Master Sergeant Class Three (三级军士长)	4 Years
	Master Sergeant Class Two (二级军士长)	4 Years
	Master Sergeant Class (一级军士长)	2 or More Years

Figure 9: Enlisted Rank Insignia as of 2009



³³ Dennis J. Blasko, *The Chinese Army Today*, p. 61, 76.

Protocol Order

The PLA is a very protocol oriented institution. When the PLA lists its services, military regions, branches/arms, administrative and functional organizations, or its key personnel, the lists are always in protocol order (组织序列).³⁴ The first criteria is generally the date a particular organization was established, but there are exceptions that should be paid attention to. For example, the order of the three services (军种) is always Army (August 1927), Navy (April 1949), and Air Force (November 1949). Since the Second Artillery Force (July 1966) is an independent branch/arm (兵种), it is never listed as one of the “three services” (三军). When the PLA wants to include the Second Artillery Force, it uses the term “all services and branches/arms” (诸军兵种).

The four General Departments are always listed in protocol order of GSD, GPD, GLD, and GAD. The subordinate departments, bureaus, and offices within each of the general departments are also listed in protocol order. The first criteria is when they were established, but some elements are placed higher in the order than older elements based upon their priority within the organization. The GSD’s Army Aviation Bureau (陆军航空局/陆航局) is a good example. It was created in 1986 and incorporated into the new Service Arms Department (兵种部) in 1993, which was then combined with the GSD Military Training Department in the mid-2000s. In 1995, the Army Aviation Bureau was separated from the Service Arms Department and became its own department (陆航部), where it remains today even though the Service Arms component of the Military Training and Service Arms Department was abolished in 2011. As a result, it is important to watch where these organizations fit in the protocol order.

The seven military regions are always listed in the following protocol order based upon the dates they were established (most prior to 1949) and where they fit in the level of importance at the time they were formed: Shenyang, Beijing, Lanzhou, Jinan, Nanjing, Guangzhou, and Chengdu.³⁵ Whereas certain MRs were more prestigious in the past, this is no longer the case. Therefore, the protocol order is more of an administrative tool today rather than a reflection of priority within the hierarchy. As such, the protocol order allows the PLA to be consistent in the way it deals administratively with the armed forces and its personnel as a whole. As an analyst, it is important to note if an organization or person changes their position in the protocol order, which most likely means that a significant change has occurred after a long internal debate. For example, over the years, the PLAN’s submarine force and surface force have alternated between first and second in protocol order. The PLA’s annual *World Military Yearbook* for 1987-1990 listed the submarine force as first, but the 1991-2002 yearbooks listed the surface forces as first. Since 2002, however, the biennial *China’s National Defense*, which is commonly referred to as the defense white paper, have listed submarines as first. Although the PLA has not clarified why the changes took place, one possible explanation is that there was a change in focus on the two branches, which may have resulted in changes to funding. Another explanation may be that the commander from 1988-1996, Zhang Lianzhong, was a submarine commander and the first

³⁴ *China Military Encyclopedia*, 1997, Vol 3, p. 856.

³⁵ See *World Military Yearbook* (世界军事年鉴), Beijing: PLA Press for the years 1987-2011; *China’s National Defense*, which has been published biennially since 1998; and *70 Years of the PLA* (中国人民解放军史的70年), Beijing: Academy of Military Science Press, July 1997, p. 623.

commander to have served at sea, and that the commander from 2003-2006 was Zhang Dingfa, was also a submarine officer, and together they pushed through the change.

From 1975 to 2000, the PLAAF listed its seven Military Region Air Forces (MRAFs) in a different order based on a combination of their priority and the dates they were created, even though each MRAF had a predecessor organization since around 1950:³⁶ Shenyang (1955), Beijing (1955), Lanzhou (1955), Nanjing (1955)³⁷, Guangzhou (1955), Jinan (1967), and Chengdu (1985). However, when the PLA implemented a new Military Unit Cover Designator (MUCD) system discussed below, the protocol order was adjusted in 2000 to match the MR order. The order for the three PLAN fleets—North Sea Fleet (1960), East Sea Fleet (1955), and South Sea Fleet (1955)—is based on geography rather than when they were created.³⁸

The criteria for listing personnel in protocol order within a particular organization is based on their importance, not necessarily on their seniority in grade, rank, or position.³⁹ Therefore, when a new person, such as a deputy commander, moves to the top of the protocol order, it usually implies he is being groomed for promotion in grade and that the deputy commanders listed below him will not be promoted and may retire within a reasonable time.

Military Unit Cover Designators

Since the 1950s, the PLA has simultaneously used a True Unit Designator (TUD/部队番号) system, where units are identified by their actual number, and a Military Cover Unit Designator (MUCD/部队代号) system to protect the identity of its units.⁴⁰ These cover designators are used on stationery letterhead, banners, in newspaper and magazine articles, and on signs at the entrance to military facilities. The PLA has changed its MUCDs at least four times since the early 1950s. Two separate sets of four-digit designators were used from the early 1950's to 1975, when a five-digit system was instituted. A new five-digit system was instituted in 2000.⁴¹ For example, the 41st Group Army was originally identified as the 53010 unit when it was formed in 1985 and was re-designated as the 75100 unit when a new system was implemented in 2000.⁴²

³⁶ This is based on the author's analysis of information obtained on the PLAAF over a 20-year period as well as individual entries in Yao Wei, ed., *China Air Force Encyclopedia* (中国空军百科全书), Beijing: Aviation Industry Press, November 2005, p. 1235-1240. Even the encyclopedia has the entries listed in protocol order. This is also the order shown in Wang Hai, *General Wang Hai: My Combat Career* (王海上将:我的战斗生涯), Beijing: Zhongyong Wenxian Press, February 2000, p. 300

³⁷ Even though the Nanjing MRAF was created in 1955, it did not have any forces in Fujian Province until the start of the 1958 Taiwan Strait Crisis.

³⁸ Shi Yunsheng, ed. *China Navy Encyclopedia* (中国海军百科全书), Beijing: Haichao Publishing House, December 1998, p. 49, 232, and 1370.

³⁹ For example, during the late 1980s, the PLAAF had four deputy commanders. Lieutenant General Yu Zhenwu was the youngest and was the last one promoted to this position, but he was listed first in protocol order.

⁴⁰ Zhu Rongchang, editor, *Air Force Dictionary* (空军大辞典), Shanghai: Shanghai Dictionary Press, September 1996, p. 145. Wu Xuyun and Xu Yuezheng, "Designator Code of Units" (部队代号), and Zhang Qingyun, "Designation of Units" (部队番号) in Song Shilun and Xiao Ke, eds, *China Military Encyclopedia*, 1997, Vol 2, p. 22.

⁴¹ The five-digit system was instituted following an expanded meeting of the CMC, which also instituted a 600,000-man reduction in force. Deng Xiaoping had just been rehabilitated and was re-instituted as a Party vice-chairman, Politburo member, CMC vice-chairman, and chief of the general staff. *70 Years of the PLA*, p. 568.

⁴² <http://wenwen.soso.com/z/q167058140.htm>, and http://blog.sina.com.cn/s/blog_4fcd03e90102dr5d.html.

The PLA assigns MUCDs to “units” (部队), which are defined as corps-, division-, brigade-, and regiment-level operational and support organizations.⁴³ These units are subordinate to the General Staff Department, General Logistics Department, and, since 1998, the General Armament Department, as well as units within the seven MRs, PLAN, PLAAF, and PLASAF. Because the General Political Department does not have any units (部队), it is not assigned any MUCDs. The PLAAF’s seven flight colleges appear to be the only academic institutions assigned MUCDs. The reason for this is that they are organized like an operational unit rather than an academic institution. The following list shows the MUCD blocks for the period of 1975 to 2000:

- 32/83xxx = Nanjing MR
 - (32xxx = Fuzhou MR 1975-1985)
 - (83xxx = Nanjing MR 1975-1985)
- 34/53/54xxx = Guangzhou MR
 - (33/34xxx = Wuhan MR 1975-1985)
- 35/56xxx = Chengdu MR
 - (351xx-355xx = Kunming MR 1975-1985)
- 36/84xxx = Lanzhou MR
- 37/38xxx = Navy
- 39/86/87xxx = Air Force
- 51/52xxx = Beijing MR
- 546/55xxx = Jinan MR
- 57/58/88xxx = General Staff Department
- 59xxx = General Logistics Department
- 80xxx = Second Artillery Force
- 81/82xxx = Shenyang MR
- 89xxx = General Armament Department

When the 1975 MUCD system was implemented, the PLA was organized into 11 MRs and had about four million personnel. In 1985, the number of MRs was reduced to seven and by 2000, the PLA had downsized by more than 1.2 million personnel. As a result, the old MUCD system no longer fit its structure. Therefore, the following new MUCD system was implemented in October 2000. Note that the protocol order for the blocks is the General Departments, Army (i.e., seven MRs), Navy, Air Force, and Second Artillery Force.

- 61xxx = General Staff Department
- 62xxx = General Logistics Department
- 63xxx = General Armament Department
- 65xxx = Shenyang MR
- 66xxx = Beijing MR
- 68/69xxx = Lanzhou MR
- 71/72xxx = Jinan MR

⁴³ Wang Yingdong, “Troops,” (部队), in *China Military Encyclopedia*, 1997, Vol 2, p. 22. *PLA Military Terminology*, 1997, p. 156, and 2011, p. 332.

- 73xxx = Nanjing MR
- 75/76xxx = Guangzhou MR
- 77/78xxx = Chengdu MR
- 91/92xxx = Navy
- 93/94/95xxx = Air Force
- 96xxx = Second Artillery Force

One anomaly is that some administrative and functional bureaus (局) under the GSD's Third Department (Technical Reconnaissance) and Fourth Department (ECM and Radar) are also assigned an MUCD. For example, the Third Department's First Bureau has the MUCD 61786 assigned to it.⁴⁴ The reason for this is unclear because bureaus are *bumen* (部门) not *budui* (部队), and should therefore not be assigned an MUCD.

Each subunit (分队) is also assigned a one-, two-, or three-digit number that follows the MUCD, such as the 78130 unit 30 subunit (78170 部队 30 分队).⁴⁵

Force Reductions

When the PRC was established in 1949, the PLA had 5.5 million troops. Since then, it has implemented ten force reductions (精简), which occurred in 1952, 1953, 1957, 1966, 1975, 1980, 1982, 1985, 1997, and 2003.⁴⁶ The only expansion occurred at the onset of the Korean War, when the force increased to 6.27 million. During the initial years, the PLA, which was formed on the basis of the infantry, added the Navy, Air Force, Air Defense Force, and Second Artillery Force, as well as the Army's artillery, armored, engineering, chemical defense, communications, and railway branches.⁴⁷ Between October 1949 and mid-1957, the CMC created a total of eight directly subordinate general departments. Between mid-1957 and late-1958, the CMC reformed the eight general departments, leaving only three—GSD, GPD, and GLD.⁴⁸

Most of the downsizings focused on reducing the size of the infantry and bloated higher-echelon headquarters. It also merged the Air Defense Force with the PLAAF, turned over entire organizations, such as the railway corps, to civilian control, and transferred units to the Ministry of Public Security and the People's Armed Police.

On 1 September 2003, CMC Chairman Jiang Zemin announced the tenth downsizing, which called for 200,000 troops to be cut. The primary goal was to move forward the development in the revolution in military affairs (RMA) and advance military reforms with Chinese

⁴⁴ Mark A. Stokes, Jenny Lin, and L.C. Russell Hsiao, *The Chinese People's Liberation Army Signals Intelligence and Cyber Reconnaissance Infrastructure*, Washington DC: Project 2049 Institute, November 11, 2011, p. 7.

⁴⁵ <http://t.qq.com/feng656746221>,

⁴⁶ Jiang Yanyu, *60 Years of New China National Defense and Military Building* (新中国国防和军队建设 60 年), Beijing: Dangjian Duwu Press, September 2009, Chapter 2, p. 17-64.

⁴⁷ As noted in the opening quotation for this chapter, China's National Defense translates *fanghua* (防化) as anti-chemical warfare; however, the Ministry of National Defense website translates it as chemical defense. See <http://eng.mod.gov.cn/ArmedForces/army.htm>. In actuality, the term refers to nuclear, biological, and chemical (NBC) warfare.

⁴⁸ James C. Mulvenon and Andrew N.D. Yang, *The People's Liberation Army as Organization*, Santa Monica, CA: RAND, 2002, p. 37.

characteristics. The goals of the tenth force reduction were as follows: to reduce the size of unit headquarters in order to increase their efficiency and quality; and to improve the balance between leadership and management compared with the support structure.⁴⁹

Of the 200,000 personnel, 85 percent were officers, including 200 one-star billets.⁵⁰ In terms of organizational changes, the PLAN reduced its eight corps leader-grade bases to corps deputy leader-grade support bases, and the PLAAF reduced its ten corps leader-grade air corps (空军军) and bases (基地) to corps deputy leader- or division leader-grade command posts. The Army also adjusted its forces. These reforms are discussed in the relevant service chapters.

In addition to reducing the number of officers, more than 70 junior officer specialty billets in aviation, communications, missile, vessel, and radar units were turned over to NCOs.⁵¹ One of the largest specialties assigned to NCOs was that of mess officers.⁵² The problem, however, is that the billets are still assigned junior officer grades and NCOs cannot be given an officer's grade. As a result, the NCOs filling those billets are still identified as "acting" (代理) leaders.

Administrative and Functional Departments

The PLA's administrative (行政) and functional (业务) departments (部门), which are sometimes called "organs" (机关), below the CMC are fairly consistent throughout the services and branches from the highest level down to the lowest level. Some departments have also been identified as operating departments (事业部门). This structure consists of first level (一级部), second level (二级部), and in some cases third-level (三级部) "departments".

Although no Chinese military dictionaries have a single entry or provide a good definition for administrative department, functional department, and operating department, based on the terms' usage in PLA writings and interviews with PLA officials, the best estimate of their meanings are shown below. Note that some of their components overlap.

- Administrative departments generally refer to the Logistics Department and Equipment Department and to most of their subordinate organizations. The departments also include some, but not all, of the subordinate organizations in Headquarters and Political Departments. These administrative departments conduct work that impacts upon daily life, including support, supplies, and housing.
- Functional departments generally refer to anything that impacts on operations. Specific functional departments include operations, intelligence, training, finance, and health.
- Operating departments are organizations that carry out specific missions that can include intelligence, communications, or political work. Within the financial management system, operating departments are responsible for funding related to their specific functional area. They manage (acquire, distribute, and use) the itemized expenditures of funds within their functional purview.

⁴⁹ Jiang Yanyu, *60 Years of New China National Defense and Military Building*, p. 62

⁵⁰ Interviews with PLA officials in 2004.

⁵¹ Cheng Ronggui, "The NCOs are not only the Technical Backbone," *PLA Daily*, February 15, 2008.

⁵² Jiang Heping and Su Ruozhou, "Training and Recruitment for Officer Billets to be Converted to NCO Duties Next Year," *PLA Daily*, December 23, 2004.

Historically, the regiment level has been the lowest level with these departments. Although no references to any administrative and functional departments were found below the regiment level, it appears that certain battalion leader-grade organizations may be trying to establish at least a Headquarters Department-type organization headed by a chief of staff (参谋长). For example, certain PLAAF SAM battalions now have a chief of staff.⁵³

At the higher echelons, the first-level generally consists of departments (部), the second-level includes departments, a general office (办公厅/办公室), and bureaus (局),⁵⁴ and the third-level consists of bureaus, divisions (处), or offices (科).⁵⁵ In the lower echelons, the first level consists of departments and divisions, while the second-level consists of divisions, offices, and branches (股). Regardless of whether it is a department, bureau, division, office, or branch, they are generically called departments (部门).

Table 7 provides an overview of how the structure looks from top to bottom. For example, the General Political Department (总政治部) has a second-level Organization Department (组织部), which has a subordinate Propaganda Bureau (宣传局). This structure is the same for the services and the military region headquarters. At the corps level, there is a Political Department with a second-level Organization Division (组织处), with a subordinate Propaganda Office (宣传科). At the regiment level, there is a Political Division (政治处) with a second-level Organization Branch (组织股). Since the regiment administrative staff is so small, there are no third level elements, so the officers in the second-level Organization Branch are responsible for all the duties handled by their counterparts at higher headquarters.

⁵³ www.chinadaily.com.cn/HQjs/2006-05/10/content_586239.htm.

⁵⁴ First level department directors in the general departments, such as the GSD Operations Department, are major generals and have the grade of corps leader. First level bureau directors have the grade of division leader.

⁵⁵ According to interviews with PLA officials, in the late 1990s, all of the third-level divisions (*chu*) subordinate to second-level departments in the four general departments were upgraded to bureaus (*ju*).

Table 7: Administrative and Functional Department Levels

Organization	First Level	Second Level	Third Level
General Departments (总部)	4 Departments (部)	Department (部), office (办公厅), bureau (局)	Bureau (局)
Service HQ (军种)	4 Departments (部)	Department (部), office (办公室), bureau (局)	Division (处)
Military Region HQ (军区)	4 Departments (部)	Department (部), office (办公室)	Division (处)
MRAF HQ (军区空军)/ Fleet HQ (舰队)	4 Departments (部)	Office (办公室), Division (处)	Office (科)
Corps (军)	4 Departments (部)	Division (处)	Office (科)
Division (师)	4 Departments (部)	Office (科)	
Brigade (旅)	4 Departments (部)	Office (科)	
Regiment (团)	HQ department (部); Political, Logistics, & Equipment Divisions (处)	Branch (股)	
Battalion (营)	None		
Company (连)	None		

In some cases, certain departments are separated at the higher levels and split at the bottom. For example, operations and training are separated at military region- and corps-level headquarters, but they are combined at some division and brigade headquarters and at all regiment headquarters. On the other hand, the PLA has combined its quartermaster/supply, materials, and POL departments at the highest levels but continue to split them at the regiment level.

Comprehensive Departments

As will be discussed in the subsequent chapters, during the 2000s, the PLA has created various types and levels of what it calls “comprehensive departments” (综合部门), which appear to be responsible for consolidating everything from the other second- and third-level departments, producing policy recommendations for the department leaders and unit deputy leaders and leaders, and then implementing those decisions once the Party committee has approved them. These departments include a Comprehensive Department (综合部) and/or Comprehensive Planning Department (综合计划部) and their lower-level counterparts at the bureau (局) and division (处) levels. It is not clear if each Comprehensive Department is actually a Comprehensive Planning Department but the name is just shortened for simplicity sake. It appears that these departments have replaced the Headquarters Department in various organizations, and they have either complemented or replaced the General Office (办公室) in other organizations.

Security Committees

Every PLA organization at the regiment and above level has a Security Committee (保密委员会), which is responsible to that level's Party Committee and the next higher level's Security Committee.⁵⁶ Military security work (军队保密工作) includes establishing policies, laws, and regulations, as well as the organizational structure, management, transmission, investigations, and education concerning the security of classified materials.⁵⁷

The exact structure of the Security Committee system is not clear; however, based on the available information, the highest level military committee is the CMC Military Security Committee (中央军委保密委员会), which is also referred to as the PLA Security Committee (解放军保密委员会).⁵⁸ This committee is apparently subordinate to the CMC's General Office (军委办公厅), which also identified as the All-Army Security Committee General Office (全军保密办). One of the DCOGS serves as the director (主任), which implies the committee is a military region leader-grade organization.⁵⁹ The committee also has several full-time members (专职委员) and at least one deputy director (副主任) who has the rank of major general, which implies the General Office is a corps leader-grade organization.⁶⁰ In addition, the committee publishes the monthly periodical *Security Work* (保密工作) through Gold Wall Press (金城出版社).⁶¹

Each committee at every level has a General Office (办公室), which manages the committee's daily affairs. At the higher levels, each General Office appears to have a subordinate Security Bureau (保密局) and a Security (Classified) Records Bureau (保密档案局). Examples of the various committees, general offices, and bureaus are shown below:

- Central Military Commission General Office
 - CMC/PLA Security Committee
 - Security Committee General Office⁶²
 - Security Bureau⁶³
 - Technology Security Research Center (技术安全研究中心)⁶⁴

⁵⁶ "Security Committee," in *PLA Military Terminology*, December 2011, p. 198. Although this dictionary translates *baomi* (保密) as security, other dictionaries translate it as secret or secrecy. See *A New English-Chinese Chinese-English Dictionary of Military Terms*, Beijing: National Defense Industry Press, October 1999, p. 254. While *baomi* security covers classified material and its transmission from one point to another, *baowei* (保卫) security covers personal and facilities security; however, the two types of organizations work closely together to security classified information.

⁵⁷ "Military Security Work," in *PLA Military Terminology*, December 2011, p. 198.

⁵⁸ www.mxr.com.cn/jrmx/2008-06/11/content_367066.htm and www.cqvip.com/Main/Detail.aspx?id=30229392.

⁵⁹ DCOGS General Zhang Li (张黎) was the director in 2008. See www.cqvip.com/Main/Detail.aspx?id=30229392.

⁶⁰ <http://club.xilu.com/xinguancha/msgview-950389-124719.html> and http://news.xinhuanet.com/mil/2007-03/29/content_5911235.htm.

⁶¹ www.jccb.com.cn/magazine/.

⁶² www.cqvip.com/Main/Detail.aspx?id=30229392.

⁶³ www.jingpin163.com/Item/Show.asp?m=1&d=2399.

⁶⁴ www.cnf888.com/zsxm/project.asp?1699.html.

- Technology Security Research Institute Product Promotion Center (技术安全研究所产品推广中心)⁶⁵
 - Security Records Bureau (保密档案局)⁶⁶
- General Staff Department General Office
 - GSD Security Committee General Office (总参保密委员会办公室)⁶⁷
 - Security Bureau (保密局)⁶⁸
 - Security Records Bureau (保密档案局)
- General Political Department
 - GPD Security Committee (总政保密委员会)⁶⁹
 - No Security Committee General Office or Bureau were found
- General Logistics Department
 - GLD Security Committee General Office (总后保密委员会办公室)⁷⁰
 - Security Bureau (保密局)⁷¹
- General Armament Department
 - GAD Security Committee (总装保密委员会)⁷²
 - No Security Committee General Office was found
 - Security Bureau (保密局), which works closely with the GAD Technology Security Inspection General Office (总装技术安全检查办公室)⁷³
- All 7 MR Headquarters plus PLAN, PLAAF, and PLASAF Headquarters have a Security Committee and Security Committee General Office, which appear to be directly subordinate to the Headquarters rather than to a specific administrative or functional department.⁷⁴

Security Regulations

The PLA organizes its classified material the following three categories (密级):⁷⁵

- Top secret (绝密)
- Secret (机密)
- Confidential (秘密).

⁶⁵ <http://big5.made-in-china.com/showroom/guohong73>.

⁶⁶ www.guoxue.com/zt/xuezhuchangcheng/03/0001.htm.

⁶⁷ www.baomiwang.com/index.php?m=content&c=index&a=show&catid=11&id=267. The Security Bureau was only a Security Division (保密处) during the late 1970s, and was apparently upgraded sometime after that. See <http://william87621.blog.sohu.com/86347620.html>.

⁶⁸ www.bidcenter.com.cn/newscontent-6192292-4.html.

⁶⁹ <http://oldweb.cqvip.com/qk/80914X/200605/21778373.html>. Although the GPD has a General Office, no information was found to indicate that the Security Committee is subordinate to it.

⁷⁰ www.cqvip.com/QK/80914X/201108/39290886.html. Although the GLD has a General Office, no information was found to indicate that the Security Committee is subordinate to it.

⁷¹ <http://bj.tuitui99.com/RentInfo8032971.html>.

⁷² www.zxhsd.com/kgsm/ts/2007/11/02/1201657.shtml. Although the GAD has a General Office, no information was found to indicate that the Security Committee is subordinate to it.

⁷³ www.noveri.com.cn/shownews.asp?news_id=86&bid=5.

⁷⁴ www.baomi.org/bmyw_info.php?optionid=30&auto_id=1412.

⁷⁵ www1.dg.gov.cn/business/htmlfiles/dgbmj/s10899/201203/479322.htm. Separate entries for “Top Secret,” “Secret,” and “Confidential” in *PLA Military Terminology*, December 2011, p. 198.

In 1963, the CMC issued the first “*PLA Security Regulations*” (解放军保密条例), which have been updated four times, including the latest version in 2011.⁷⁶ Following the release of the 1998 version, a lengthy *PLA Daily* article stated, “In recent years, there have been some shocking cases of military secrets being leaked. Some people have talked thoughtlessly about the designation of military units, active equipment, the location of their stations, and other military secrets, and have even released information involving military secrets on television and radio as well as in the open press.”⁷⁷ According to the 2011 regulations, classified material is divided into 13 types, which can be generalized as everything that has to do with the organizational structure, strategy, operations, tactics, weapons and equipment, personnel, research and development, budgets and acquisition, training, intelligence, deployments, missions, political work, mobilization, and communications.⁷⁸

Political Work System

The PLA’s political work (整治工作) is the means through which the Chinese Communist Party (CCP) guarantees absolute control over the military. The PLA political work system consists of the following six main elements that are integrated into every organization in the PLA.⁷⁹

- Party Congress (党代表大会) system
- Party Committee (党委) system
- Political officer (政治干部) system
- Political administrative and functional department (政治部门) system
- Discipline inspection (纪律检查工作) system
- Judicial (政法工作) system.

The PLA has two categories of Party committees:

- Unit Party committees (部队党委)
- Administrative and functional department Party committees (机关党委).

Furthermore, every administrative and functional department has one of five types of party organizations:

- Party committee (党委)
- Grassroots Party committee (基层党委)
- Party general branch (党总支)
- Party branch (党支部)

⁷⁶ “Jiang Zemin Signs Promulgation of ‘PLA Secrecy Regulations’,” *PLA Daily*, 27 March 1996. *PLA Secrecy Regulations*, found at <http://baike.baidu.com/view/1091425.htm>. *PLA Security Regulations* (中国人民解放军保密条例), 13 March 2012, found at www1.dg.gov.cn/business/htmlfiles/dgbmj/s10899/201203/479322.htm.

⁷⁷ “Article Warns of Intelligence Theft,” *PLA Daily*, 14 May 1998.

⁷⁸ *PLA Security Regulations* (中国人民解放军保密条例), 13 March 2012, found at www1.dg.gov.cn/business/htmlfiles/dgbmj/s10899/201203/479322.htm.

⁷⁹ *PLAAF 2010*, Chapter 6 (Political Work System).

- Party small group (党小组).

Unit Party Committees

A unit Party committee is established in each headquarters for all PLA organizations at the regiment level and above. Each of these Party committees has a standing committee consisting of the commander, political commissar, deputy commanders, deputy political commissars, and directors of the four first-level administrative departments (Headquarters, Political, Logistics, and Equipment). In most cases, the political commissar serves as the Party secretary and the commander as the deputy secretary. In some situations, such as when the commander has previously served as a political commissar, the commander is the secretary and the political officer is the deputy secretary. For example, former PLAAF commander Qiao Qingchen, who had previously served as the PLAAF political commissar, was the Party secretary.

Administrative and Functional Department Party Committees

In addition to the headquarters' Party committee, each of the four first-level departments (Headquarters, Political, Logistics, and Equipment) has its own department Party committee. All second- and third-level departments also have some type of Party organization. Depending on the size of the department, the Party organization can be a Party committee, Party general branch, or Party branch.

- The chief of staff serves as the secretary of the Headquarters Department's Party committee, and one of the deputy chiefs of staff serves as the deputy secretary.
- The Political Department director serves as the secretary of the Political Department's Party committee, and one of the deputy directors serves as the deputy secretary.
- Because the Logistics Department and Equipment Department each have a director and a political commissar, the political commissar is usually the Party secretary and the director serves as the deputy secretary.
- In second- and third-level departments, the department director is the Party secretary and one of the deputy directors is the deputy secretary.

Grassroots Party Committees

A grassroots Party committee is assigned to the headquarters element for all battalion-level organizations. Although these committees are formally identified as grassroots Party committees, the PLA often omits the term "grassroots" and identifies them just as Party committees. Grassroots Party committees are not assigned to administrative departments.

Party General Branches

Party general branches are established only within administrative and functional departments that are too small to have a Party committee but too large for a Party branch. They are not established as a unit's Party organization.

Party Branches

Party branches are assigned to all company-level organization headquarters and, depending on their size, to most second- and third-level administrative and functional departments. For example, the second-level Propaganda Division subordinate to an MRAF Political Department has a Party branch.

Party Small Groups

All PLA Party members must belong to some type of Party organization. Party small groups are established at the platoon level, where only a few officers are present, and at the squad level, which is composed solely of enlisted personnel.

In addition, when the PLA establishes ad hoc working groups, the members, regardless of their grade or rank, are organized into a Party small group or a Party branch. The type of Party committee established, such as a Party small group or Party branch, depends on the number of Party members involved.

Academic Institutions

Types of Military Academic Institutions

There does not appear to be a single PLA source, including chinamil.com (*PLA Daily online*), with an official list of the PLA's academic institutions in the education and training system (教育培训系统). Part of the reason for this is that several institutions have merged into universities, but they are not counted in the official list, while others have changed their name or been abolished. See Appendix A for an explanation of the key terms used for PLA academic institutions (院校): university (大学), *xueyuan* (学院), and school (学校).

Differences between University, Xueyuan, and School

In terms of organizational structure, the biggest differences between a PLA university, *xueyuan* and schools are shown below. Each of the components will be discussed in detail later.

- Universities, such as National University of Defense Technology
 - Command staff (commander, political commissar, and deputies)
 - Administrative and functional departments
 - Subordinate *xueyuan*
 - Command staff
 - Administrative and functional departments
 - Academic departments
 - Key labs
- *Xueyuan* such as the Second Artillery Force Engineering Academy and Air Force Early Warning College
 - Command staff
 - Administrative and functional departments
 - Academic departments
 - Key labs
- Schools (*xuexiao*) such as the Air Force Dalian Communications NCO School
 - Command staff
 - Administrative and functional departments
 - Academic departments

Comprehensive Universities

In 1999, the Central Military Commission (CMC/中央军委) designated five PLA universities as comprehensive universities (综合大学) with programs in science, engineering, military science,

social science, management, economics, philosophy, literature, education, law, and history. No good definition was found for a comprehensive university, but the PLA Navy discusses its program as one that provides senior technical, bachelor's, master's, and doctorate degrees in a wide variety of technology and engineering areas. The five universities, each of which has several subordinate *xueyuan*, are:⁸⁰

- Air Force Engineering University (AFEU/空军工程大学)
- National University of Defense Technology (NUDT/国防科学技术大学)
- Naval Engineering University (NAE/海军工程大学)
- PLA Information Engineering University (PLAIEU/解放军信息工程大学)
- PLA Science and Engineering University (PLAUST/解放军理工学院)

Academic Education and Professional Education Institutions

During the 14th All-Army Academic Institution Conference (第十四次全军院校会议) in June 1999, the decision was made to separate academic and professional education and to switch from academic education as the primary (为主) to having professional education as the primary. As such, the education focus (教育重心) was shifted from engineering and technology (工程技术) to education for command and staff officers (指挥与参谋军官培养). During the 15th All-Army Academic Institution Conference (第十五次全军院校会议) in November 2003, the decision was made to change the organizational structure of the PLA's academic institutions by creating two types (类) with professional education institutions as the main form (主体).⁸¹ The implication is that academic institutions were the second form.

According to the *Contemporary Military Academic Institution Education Dictionary*, academic education institutions are responsible for providing bachelor's degrees to new officers (生长军官本科学历教育). At the same time, they are responsible for providing graduate student education (研究生教育). Professional education institutions are responsible for providing professional military education (PME/培训) for billets for all categories of officers and NCOs (各级各类军官和士官岗位任职培训).⁸²

Prior to July 2011, the PLA categorized its existing 67 academic institutions by subordination into eight responsible units (主管单位), each of which is, in turn, organized into two categories—academic education institutions and professional education institutions—as shown in Table 8 below. See Appendix C for the full list.

⁸⁰ Information accessed at <http://club.xilu.com/emas/msgview-821955-4656460.html> on 3 January 2011. “University (综合大学),” in *Contemporary Military Academic Institution Education Dictionary* (现代军校教育辞典), Beijing: National Defense University Press, July 2009, p. 115.

⁸¹ Tu Hengzhang, ed., *Discussion of Military Professional Education* (军事任职教育论), Beijing: Academy of Military Science Press, March 2007, Chapter 5, p. 92.

⁸² *Contemporary Military Academic Institution Education Dictionary*, p. 116-117. Of note, this dictionary translates *renzhi jiaoyu* (任职教育) as vocational educational institutions, but it also translates *zhiye jiaoyu* (职业教育) as vocational education.

Table 8: The PLA's 67 Academic Institutions

Responsible Unit	Academic Education Institutions	Professional Education Institutions
CMC (2)	1	1
General Staff Department (18)	6	12
General Political Department (3)	0	3
General Logistics Department (9)	6	3
General Armament Department (5)	2	3
Navy (8)	3	5
Air Force (15)	3	12
Second Artillery Force (3)	1	2
Military Regions (4)	0	4
Total (67)	22	45

Academic Institution Unit and Specialty Codes

During the early 2000s, the Ministry of Education (MOE/教育部) created the *National Code List for Institutions that Award Degrees* (全国各学位授予单位代码) as a foundation to assign a five-digit code (单位代码) to most, but not all, degree awarding academic and research institutions, including PLA institutions, which are, in turn, identified by their official name (单位名称). The list was updated in January 2009 to add institutions that were omitted from the earlier list and to make the necessary changes to the names of existing institutions. Appendix C provides a list of the PLA academic and research institutions and available codes. It is not clear why the PLA's Academy of Military Science (AMS/军事科学院), which is an MR leader-grade organization and provides graduate degree programs, is not assigned an academic code.⁸³

In addition, MOE assigns a four-digit code (学科专业代码) and an official name (学科专业名称) to every graduate major/specialty, and a six-digit code and official name to every graduate sub specialty, which is based on the four-digit code to which each sub specialty is related.⁸⁴ The four-digit codes are identified as level 1 (一级) and the six digit codes are identified as level 2 (二级) codes.⁸⁵

Protocol Order

The PLA's academic institutions have a protocol order, which appear to match the MOE list of institutions shown in Appendix C. In addition to the protocol order for the academic institutions, the people and organizations within each institution are almost always listed in protocol order. This is extremely helpful, as discussed below, in finding the link between the name and number assigned to institutions and academic departments.

⁸³ See <http://wenku.baidu.com/view/655f7f170b4e767f5acfce11.html> for information about AMS's 2011 recruitment for 36 master's degree students and www.cnki.net/kcms/detail/Detail.aspx?dbname=CJFD2010&filename=JSYC201003022 for information about AMS's 2011 recruitment for 39 doctoral students.

⁸⁴ Information accessed at www.5istudy.com/Article/master/jianzhang/Article_22608.html on 16 February 2011.

⁸⁵ Information accessed at www.caeitedu.com/zhaosheng.htm and www.5istudy.com/Article/master/jianzhang/Article_22608.html on 18 February 2011.

Organizational Grade Structure

Every academic institution has a grade (职务等级) assigned to it, which is the same grade as the commandant and political commissar. In 2003, the CMC determined that all military academic institutions would have one of five grades: military region (MR) leader (正大军区职), MR region deputy leader (副大军区职), corps leader (正军职), corps deputy leader (副军职), or division leader (正师职).⁸⁶ National Defense University (NDU/国防大学) and the Academy of Military Science are the only MR leader institutions, and National University of Defense Technology is the only MR deputy leader institution.⁸⁷

In addition, each subordinate *xueyuan*, administrative and functional department, academic department, laboratory, and student team has a grade assigned. Finally, every officer billet has a grade assigned.

Military Unit Cover Designators

Whereas MOE has assigned codes to all military academic institutions except the NCO schools, the exact opposite is true for MUCDS. In this case, it appears that no military academic institutions except for the PLAAF's seven flight colleges, which are organized like operational units, are assigned an MUCD.

Academic Degrees

Military academic institutions offer the five following types of academic degrees (学位):

- Secondary technical degree (中专), which is a 2-year high school equivalency degree that is available only to enlisted personnel; however, some officers received this degree through the mid-1990s
- Senior technical degree (大专), which is a 2- or 3-year degree equivalent to a U.S. associates or vocational degree that is available to all enlisted personnel, as well as officers (primarily in the maintenance, support, and technical specialties)
- Bachelor's degree (本科), which is a 4-year degree that is available primarily to officers in the military/command track, as well as some officers in the maintenance, support, and technical tracks. The PLA began offering its first bachelor's degrees in 1982. Some enlisted personnel with bachelor's degrees are beginning to voluntarily join the PLA.
- Master's degree (硕士), which is available to officers. The PLA began offering its first master's degrees in 1988. Not every institution offers this degree.
- Doctorate degree (博士), which is available to officers. The PLA began offering its first doctorates in 1990. Not every institution offers this degree.

Leadership

Universities, *xueyuan*, and schools have the following leaders. Note that the commandant and political commissar often have different ranks, which differ by one rank, such as colonel and

⁸⁶ "Establishment of rank of military college (军校编制等级)," in *Contemporary Military Academic Institution Education Dictionary*, p. 111.

⁸⁷ There are various websites that provide the grade for these institutions, such as <http://hi.baidu.com/1119873681/blog/item/1becdeb349273ffa30add162.html>.

senior colonel or senior colonel and major general. Although they may have different ranks, they always have the same grade, which is the same grade as the institution.

- Commandant/President: University and school commandants are identified as a *xiaozhang* (校长), and *xueyuan* commandants, including *xueyuan* subordinate to a university, are identified as *yuanzhang* (院长).
- Political commissar (PC): The PC for all academic institutions, including *xueyuan* subordinate to a university, is identified as the *zhengzhi weiyuan* (政治委员) or simply the *zhengwei* (政委)
- Deputy commandants/presidents: Depending on the type of institution, they are identified as *fuxiaozhang* (副校长) or *fuyuanzhang* (副院长). Depending on the institution's level, there are usually 2-3 deputy commandants, each with different responsibilities.
- Deputy political commissars: The deputy PCs are identified as *fuzhengwei* (副政委). Depending on the institution's level, there are usually 1-2 deputy PCs.

Party Committees

Each academic institution has a Party committee (党委) with a standing committee (常委). The political commissar is usually the secretary (书记), and the commandant is the deputy secretary (副书记). The standing committee usually consists of the political commissar, commandant, director of the Political Department, and director of the Training Department, as well as the deputy commandants and deputy political commissars.

Each subordinate *xueyuan* within a university also has its own Party committee and standing committee, whose members mirror those on the university's Party committee. Each of the members of the *xueyuan*'s Party committee is also a member of the university's Party committee. Each academic department, in turn, has its own Party committee and standing committee, and its members are members of the *xueyuan*'s Party committee. Because academic departments do not have a political commissar, the director usually serves as the secretary and one of the deputy directors serves as the deputy secretary.

Administrative and Functional Departments

Military academic institutions have at least the following three functional (业务) and administrative (行政) departments (机关/部门), which are always listed in protocol order:

- Training Department (训练部): The Training Department serves the same purpose as a Headquarters Department in other organizations. It is also responsible for all policy issues as well as managing all training matters. Every university has a Training Department, and most, but not all, of its subordinate *xueyuan* have their own Training Department.
- Political Department (政治部): The Political Department is organized the same as all other PLA Political Departments and serves the same functions. Every university has a Political Department, and most, but not all, of its subordinate *xueyuan* have their own Political Department.
- *Xueyuan*/School Affairs (院务部 或 校务部): It is not clear what the *Xueyuan*/School Affairs Department is responsible for, but it is most likely in charge of managing the

facilities and logistics issues. Every university has this department, and some, but not all, of its subordinate *xueyuan* have their own department as well.

Depending on the institution's mission and curriculum, it also has a Scientific Research Department (科研部), which is responsible for overseeing all of the institution's technical training curricula and systems research work. The Scientific Research Department also has subordinate classrooms and laboratories, where personnel from the department provide training to the cadets. For example, the National University of Defense Technology's Scientific Research Department has a Weapons and Equipment Development Research Center (武器装备发展研究中心).

The Graduate School (研究生院) is also considered an administrative and functional organization but not a department. It provides overall guidance for the graduate programs in each subordinate college. It does not have any students assigned to it. It is a corps deputy-leader grade organization.

Each university most likely has all of the above departments. Depending on their size, specialty, and location, each of the university's subordinate *xueyuan* has some, but not all, of the departments. *Xueyuan* not subordinate to a university have at least a Training Department, Political Department, and *Xueyuan* Affairs Department.

The PLAAF's seven flight colleges are an exception to the structure above, because they are organized in the same way as an operational air division with a command staff plus four administrative and functional departments—Headquarters Department (司令部), Political Department (政治部), Logistics Department (后勤部), and Equipment Department (装备部). Rather than academic departments, each college has a subordinate basic trainer regiment for the third-year students and one or more advanced trainer regiments for the fourth-year students.

Academic Departments and Specialties

Each institution has several academic departments (系) and associated specialties (专业), which prepare graduates to assume their operational duties. For example, the PLAAF's Air Defense Missile College has six academic departments—Command Engineering, Computer Engineering, Electro-Mechanical Engineering, Radar Engineering, Guided Missile Engineering, and Systems Engineering—and 12 academic specialties. The subordinate departments and specialties are usually listed in protocol order in books, media articles, and on the web.

The Basic Department (基础部) is considered an academic department not an administrative and functional department. It is responsible for providing instruction in certain required basic education courses that all undergraduates must take regardless of their specialty. In some cases, however, the Basic Department no longer exists. For example, NUDT's department was replaced by a computer center (计算机中心), which is also responsible for the university's library. It is a corps deputy-leader grade organization.

Organization Names and Number Designators

Depending on the institution, at least some, but not necessarily all, of the subordinate organizations, including *xueyuan* and academic departments, are assigned a name and a number designator, such as NUDT's College of Aerospace and Materials Engineering is also identified as the 1st College (一院). In most cases, only the name or the number designator is used. Therefore, you must search for either the name or the number designator; however, certain websites provide a list of both.⁸⁸ PLA websites and information in news articles, blogs, and books almost always list the organizations and subordinate entities in protocol order. Therefore, it is easier to link the names and number designators. Table 9 provides a good example of NUDT, which shows the ten colleges, their assigned college number, grade, and number of subordinate academic departments as they are listed in NUDT's official website, other websites, and PLA books.

Table 9: National University of Defense Technology Organizational Structure

Chinese Name	English Name	College Number (院)	Grade (等级)	Academic Departments (系)
航天与材料工程学院	College of Aerospace and Materials Engineering	1	Division leader (正师)	3
里学院	College of Science	2	Division leader	2
机电工程与自动化学院	College of Mechatronic Engineering and Automation	3	Division leader	3
电子科学与工程学院	College of Electronic Science and Engineering	4	Corps deputy leader (副军)	3
信息系统与管理学院	College of Information Systems and Management	5	Division leader	3
计算机学院	College of Computer	6	Corps deputy leader	2
光电科学与工程学院	College of Opto-Electronic Science and Engineering	7	Division leader	2
人文与社会科学学院	College of Humanities and Social Sciences	8	Division leader	3
指挥军官基础教育学院	College of Basic Education for Commanding Officers	9	Division leader	4
继续教育学院	College of Continuing Education	None	Corps deputy leader	0

Most, but not all, academic departments also have a name and a number designator. Table 10 provides an example for the Air Force Engineering University's Air Force Engineering College, which has nine academic departments and 15 specialties:

⁸⁸ See [www.tianya.cn/new/publicforum/Content.asp? strItem=university&idArticle=60744](http://www.tianya.cn/new/publicforum/Content.asp?strItem=university&idArticle=60744).

Table 10: Air Force Engineering College Organizational Structure

Chinese Name	English Name	English Number	Chinese Number
飞机于发动机工程系	Aircraft and Engine Engineering Department	1 st Department	一系
航空兵器工程系	Aviation Weapons Engineering Department	2 nd Department	二系
航空自动控制工程系	Aviation Automatic Control Engineering Department	3 rd Department	三系
航空电子工程系	Aviation Electronics Engineering Department	4 th Department	四系
机场建筑工程系	Airfield Construction Engineering Department	5 th Department	五系
航空装备管理工程系	Aviation Equipment Management Engineering Department	6 th Department	六系
外语系	Foreign Languages Department	None	None
新装备训练系	New Equipment Training Department	None	None
外训系	Foreign Training Department	None	None

Student Organizational Structure

Depending on the academic institution, undergraduate students/cadets (学员) and graduate students (研究生) are organized into the following organizations, which are usually subordinate to the academic department to which they are affiliated.

- Student joint training brigade (学员合训旅) is subordinate to the university or *xueyuan*, is the largest student unit, and has subordinate numbered teams (队), such as the 1st Team (一队).
- Student group (学员大队) is a numbered battalion-level organization, such as the 5th Group (五大队), and has subordinate numbered teams.
- Student company (学员连) is a numbered company, such as the 2nd Company (二连), has subordinate numbered teams.
- Student team (学员区队) is a numbered organization, such as 1st Team (一区队), that is unique to academic institutions and is somewhere between a company and platoon.
- Student team (学员队) is a numbered platoon-level organization, such as the 3rd Team (三队), each of which has subordinate squads. Every military academic institution has student teams.
- Student squad (学员班) is the smallest organization, each of which has a number such as the 1st Squad (一班).
- Graduate student team (研究生队) is a platoon-level organization, which are occasionally identified as the 1st, 2nd, 3rd, teams (研究生一队, 二队)
- Doctorate student team (博士生队) is a platoon-level organization
- Master's student team (硕士生队) is a platoon-level organization

Appendix 1: Key Terminology and Concepts

As a general rule, the PLA does not have a problem with the names for its organizations. The problem comes when either the PLA or USG tries to translate the names into English. Yet another issue for the USG is how to write the Pinyin for Chinese terms. For example, how does one write the Pinyin for the four characters for General Staff Department (总参谋部): *zongcanmoubu*, *zongcanmou bu*, *zong canmou bu*, or *zong can mou bu*.

One of the most difficult aspects of any study on the PLA is deciding on the best method to translate key PLA terms and concepts so that they make sense in a U.S. military context. Unfortunately, most Chinese military dictionaries provide only a direct English translation for key terms, and the same term is often translated differently in different books and even within the same book. In addition, most PLA books do not provide detailed explanations or definitions for those terms. Sometimes, PLA terms cannot be easily translated into English, or the common English translation means something different for the U.S. military than it does for the PLA. For example, a PLA Air Force or Naval Aviation *zhongdui* (中队), which is normally translated as a squadron, has only two to four aircraft, while a U.S. Air Force squadron has 15-24 aircraft.

Therefore, some PLA terms are best translated into English, while other terms are best left in Chinese. For example, it is sometimes best to use certain Chinese terms, such as *zongdui* (总队), *zhidui* (支队), *dadui* (大队), and *zhongdui* (中队), rather than assigning them an English translation.

The following sub-sections list key PLA terminology and explain their meaning based on analysis of how the PLA uses the terms in its newspapers, journals, and books. In some cases, the information comes from interviews with PLA officers. The terms are organized into the following four categories:

- The Armed Forces and Military
- CMC, Services, Branches/Arms, and Units
- Military Region and Theater of War
- PLA Leadership and Administrative and Functional Organizational Structure
- Academic Institutions
- Grades and Ranks
- Informatization/Informatized

The Armed Forces and Military

Wuzhuang lilian (武装力量): According to the *2002 China's National Defense*, China's Armed Forces consists of three components: the People's Liberation Army (PLA/中国人民解放军), which is composed of active duty Army, Navy, Air Force, and Second Artillery Force personnel; the People's Armed Police (PAP/人民武装警察部队); and the Reserves (预备役部队) and Militia (民兵).

Jundui (军队): According to the PLA's dictionary, *jundui* is a regular armed organization established by a state or political group for the preparation and implementation of war. The 2011

PLA Military Terminology translates *jundui* as PLA and army.¹ *China Military Encyclopedia* translates *jundui* as army and uses the same definition as the PLA dictionary. *Jundui* is often used in combinations, such as army building (军队建设), which refers to all of the armed forces. Depending on the context, it is best to translate *jundui* as military, which connotes all of the armed forces, not just the PLA or ground forces.

CMC, Services, Branches/Arms, and Units

Zhongyang junwei (中央军委): *Zhongyang junwei* refers to the Military Commission (军事委员会) of the Central Committee (中央委员会) of the Chinese Communist Party (CCP/中国共产党), but even the Chinese use the acronym CMC. This organization has been in existence since the early days of the Red Army and was identified in English as the Military Affairs Commission (MAC) until the late 1980s, when it was renamed the Central Military Commission and given the acronym CMC.

Dierpao bing (第二炮兵/二炮): *Dierpao bing* refers to the Second Artillery Force (PLASAF), which is sometimes referred to simply as Second Artillery. Although it is an independent branch (独立兵种) and the PLA originally referred to it as Second Artillery Corps, the *China Military Encyclopedia* (2007) translated it as Second Artillery and the biennial *China's National Defense* has referred to it since 1998 as the Second Artillery Force and added the acronym PLASAF in 2010. Meanwhile, the USG continues to refer to it as Second Artillery Corps in DoD's Annual Report to Congress. For purposes of this book, Second Artillery Force and the acronym PLASAF are used. Quite often, authors mistakenly include Second Artillery Force as a service. To solve this problem, it is sometimes best to add a footnote the first time Second Artillery Force is identified and state that, for simplicity purposes, the three services and PLASAF will be referred to as "the services."

Junzhong (军种) and (*bingzhong*; 兵种): The PLA has three services (军种), including the Army or Ground Forces (PLAA/陆军), Navy (PLAN/海军), and Air Force (PLAAF/空军), which are always listed in protocol order based their date of origin. Each service is composed of several branches/arms (*bingzhong*; 兵种). When Second Artillery, which is an independent branch, is noted along with the three services, it is always listed fourth in protocol order. The PLA uses *zhu jun bing zhong* (诸军兵种), which is translated as the services and branches, to refer to all three services and Second Artillery Force.

Jun (军): The PLA has *jun* leader-grade (正军职) and *jun* deputy leader-grade (副军职) organizations and officers. While some dictionaries translate *jun* as army, most translate it as a corps. One of the problems is that, in the U.S. military, an army and corps are two different levels of organizations and a corps can be subordinate to an army. The PLA has several *jun* leader-grade organizations, some of which incorporate the term *jun* and some of which do not. For PLA organizations that include the term *jun*, some translations use corps or army. Specifically, there are *jituanjun* (集团军), which the USG calls group armies and biennial *China's National Defense* and military encyclopedia call combined corps.

¹ *PLA Military Terminology*, 1997, p. 12 and 2011, p. 19. *China Military Encyclopedia*, 1997, Vol 2, p. 324.

Zhihui bu (指挥部): This term is often translated as command or headquarters, depending on the situation. The PLA has engineering *zhihui bu* subordinate to various logistics headquarters, and the PAP has gold, hydropower, communications, and forestry *zhihui bu*, all of which are corps leader-grade organizations. The PLA also has also been creating joint *zhihui bu* (联合指挥部), which are usually translated as joint command headquarters, during certain exercises and the 2008 Sichuan earthquake relief efforts.²

Zongdui (总队): There is no good translation for the term *zongdui*, which is often translated as general unit, general corps, general group, and contingent. *Zongdui* in the PLA and PAP are subordinate to *zhihui bu*. In the PLA, most *zongdui* are engineering organizations and are division leader-grade organizations. The PAP's *zongdui* are subordinate to the gold, hydropower, communications, and forestry *zhihui bu* and are division leader-grade organizations.

Zhidui (支队): There is no good translation for *zhidui*, which is often translated as flotilla, naval ship brigade, and detachment, so it is best not to translate it. Within the PLA, *zhidui* have the grade of division leader. In the PAP; however, it is a regiment leader-grade organization.³

Dadui (大队): Depending on the context, a *dadui* can be either a division deputy leader-, regiment leader- or a battalion leader-grade organization. The ground forces have various special operations force (SOF) *dadui* that are division deputy leader-grade organizations, some of which are being re-designated as brigades. Each service has several regiment leader-grade training *dadui*. The PLAN has regiment leader-grade vessel *dadui*, which are usually translated as squadrons.⁴ The PLAAF and Naval Aviation have battalion leader grade flight *dadui* (飞行大队) and maintenance *dadui* (机务大队), which are usually translated as groups.

Zhongdui (中队): Depending on the context, a *zhongdui* can be translated as a squadron or just *zhongdui*. The PLAAF and Naval Aviation have company leader-grade flight and maintenance *zhongdui*, which are usually translated as squadrons. The problem with this, however, is that a PLAAF and Naval Aviation squadron has only 2-4 aircraft, while a USAF squadron has 15-24 aircraft, so it may be misleading to a USAF audience. The PLAN has battalion leader-grade

² Information on a *zhihui bu* being created for the 2012 Queshan (确山) Joint Exercise was accessed at www.cssn.cn/news/495854.htm on 29 June 2012. Li Junbo, Yang Bin, and Yu Donghai, "An Explorative Analysis of the Organization and Command of Troops in Carrying out Disaster Rescue and Relief Operations," *Zhanshi Bao*, 4 July 2008.

³ To illustrate the lack of continuity among PLA Navy sources, the *Navy Dictionary* (p. 179) translates *jianting zhidui* (舰艇支队) as a naval ship brigade. The *PLA Navy Encyclopedia* (p. 1099) translates the same term as a ship detachment. China's 2002 defense white paper translates *zhidui* as flotilla. Some Western publications, such as *Jane's Fighting Ships*, translate *zhidui* as naval divisions. There is no good English equivalent for a PAP *zhidui*; however, China's biennial defense white papers have translated PAP *zhidui* as detachments. Zhang Xusan, ed. *Navy Dictionary* (海军大词典), Shanghai: Shanghai Dictionary Publishing House, October 1993.

⁴ The *PLA Navy Dictionary* and the *PLA Navy Encyclopedia* translate *jianting dadui* (舰艇大队) as a ship group. *China's National Defense 2002* translates the term as a squadron. Zhang Xusan, *Navy Dictionary* p. 180. Shi Yunsheng, ed. *China Navy Encyclopedia* (中国海军百科全书), Beijing: Haichao Publishing House, December 1998, p. 1099. *China's Navy 2007* uses the term *dadui* and does not translate it into squadron.

vessel *zhongdui*, which do not have a good U.S. military equivalent term. Therefore, references to naval vessel *zhongdui* do not include an English translation.⁵

Bingtuan (兵团): The 1997 *China Military Encyclopedia* translates *bingtuan* as “formation” and states that it is the generic term for corps, division, and brigade combat units, which are organized into campaign *bingtuan* and tactical *bingtuan*.⁶ Although the encyclopedia translates *bingtuan* as formation, it is best to just use *bingtuan* and add a footnote explaining what it is. From 1979 to 1988, the PLA had 18 grades, including a *bingtuan* leader (正兵团职) and *bingtuan* deputy leader (副兵团职) grade between the military region and corps levels. In 1988, the *bingtuan* level was abolished. The *bingtuan* leader grade organizations were upgraded to MR deputy leader, and the *bingtuan* deputy leader grade organization were downgraded to corps leader. At that time, the seven MRAF and three fleet headquarters were upgraded from *bingtuan* leader to MR deputy leader, and, as a result, the commanders became concurrent MR deputy commanders. Of note, although the 1997 edition of *PLA Military Terminology* has an entry for *bingtuan*, which states that it is the generic term for divisions and brigades, the 2011 edition does not have an entry.⁷

Juntuan (军团): The 1997 *China Military Encyclopedia* translates *juntuan* as “large formation” and states that it is the generic term for “front army” (方面军) and “group army” (集团军) combat units. While front armies are strategic and campaign *juntuan*, group armies are campaign *juntuan*.⁸ Although the encyclopedia translates *juntuan* as large formation, it is best to just use *juntuan* and add a footnote explaining what it is. Based on analysis of how *juntuan* is used, it normally applies to the PLA’s MRAFs, fleets, group armies, and Second Artillery bases. Of note, although the 1997 edition of *PLA Military Terminology* has an entry for *juntuan*, which states that it is the generic term for group armies (corps) and above combat organizations, the 2011 edition of *PLA Military Terminology* does not have an entry for *juntuan*.⁹

Danwei (单位): To make the distinction between a *budui* (部队) and *danwei*, both of which can be translated as unit, a good workaround is to translate *danwei* as a work unit. The PLA uses the term *danwei* as a generic term that refers to all types of PLA organizations, including combat and non-combat units and organizations. In some cases, the PLA uses *danwei* to refer only to non-combat organizations, such as administrative organizations, academic institutions, and research institutes, etc. The exact meaning is usually clear from the context.

Budui (部队): The term *budui* is translated as unit. A *budui* refers to four specific organizations—corps (军), division (师), brigade (旅), or regiment (团). *Budui* are operational and support organizations that are normally involved in the campaign-level (战役) of war.

⁵ *China’s Navy 2007* uses the term *zhongdui* for vessels and does not translate it.

⁶ *China Military Encyclopedia*, 1997, Vol 2, p. 13.

⁷ *PLA Military Terminology*, September 1997, p. 156. The 1997 edition does not have an English translation for the term.

⁸ See *China Military Encyclopedia*, 1997, Vol 2, p. 401 for *juntuan* and p. 90 for front army.

⁹ *PLA Military Terminology*, September 1997, p. 155-156.

Jiceng (基层): *Jiceng* is usually translated as grassroots or grassroots units, which refers specifically to battalions, companies, and platoons, although some definitions include squads (*ban*; 班), which are led by NCOs.

Fendui (分队): Different Chinese and English dictionaries translate *fendui* as subunit, detachment, element, battery (SAM or AAA), or flight (maintenance). For continuity sake, it is best to just refer to it as a *fendui*. Although the term *fendui* refers specifically to battalions, companies, and platoons, which together comprise the grassroots level, a *fendui* can also refer to an ad hoc grouping of personnel, usually at the platoon, company, or battalion level, organized for a particular function. For example, a logistics support *fendui* can consist of personnel from several different specialties.

Budui (*fendui*)/部队 (分队): PLA articles often use the terms *budui* and *fendui* together as *bu(fen)dui* (部(分)队). This combination of terms refers to all operational organizations between the corps level and platoon level, and sometimes includes the squad level. When these terms are noted together, it is best to use units and subunits.

Jidi (基地): *Jidi* is always translated as base. Within the PLA, there can be corps leader-, corps deputy leader-, and division leader-grade bases. The different types of bases include satellite launch and tracking bases, weapons test bases, Second Artillery bases, PLAN support bases, and training bases. The person in command of a base can be a commander (司令员) or a director (主任). The difference between the two terms and their responsibilities is not clear.

Military Region and Theater of War

Junqu (军区) and *zhanqu* (战区): The best translation for *junqu* is military region (MR), but the PLA translates it as military area command. The best translation for *zhanqu* is theater, while the PLA translates it as theater of war and occasionally just uses theater.¹⁰ Some non-government Western publications translate *zhanqu* as warzone.

The PLA has systematically organized its forces geographically into five field armies (1947), 5 MRs (1948), 6 MRs (1949), 13 MRs (1955), 11 MRs (1969), and 7 MRs in 1985. Since the early 2000s, it has been in the process of morphing (初步成型) the 7 MRs into *zhanqu* (战区). As noted earlier, unfortunately, no explanation has been given to what morphing means; however, the implication is that, even though they still have the same provincial boundaries, more training and exercises are occurring across MR borders and between headquarters in each MR/theater. Furthermore, during exercises, each MR is referred to as a theater. The stated goal is to have a command and control structure that is combined during peacetime and wartime (平战结合).¹¹

¹⁰ Ibid, p. 77-78. The dictionary translates *zhanqu* as theater of war and defines it as a strategic area (战略区) without mentioning MRs. China's 2006 defense white paper translated *zhanqu* as theaters of war, the 2008 version translated it as theaters, and the 2010 version translated it as military area command, which implied that the MRs and theaters were synonymous. The U.S. Department of Defense's annual report to Congress on the PLA has only used the term theater or theater of war a few times since 2006, which is usually a direct quote from China's defense white paper. It has not used the term warzone.

¹¹ Liao Xilong, "Personally Experiencing Jinan Theater's Major Joint Logistics Reform," *PLA Daily Online*, 16 December 2008.

Today, China is divided into seven *junqu* (军区), which the PLA translates as military area command and the USG translates as military region. Each MR covers two or more provinces/autonomous regions and includes the four centrally-administered cities (municipalities) of Beijing, Tianjin, Shanghai, and Chongqing. MRs are MR leader-grade organizations and are named after the city in which their headquarters is located. In 2012, the seven MRs (in protocol order) are structured as follows:

- Shenyang MR, consists of the Liaoning, Jilin, and Heilongjiang MDs and includes the northeastern part of Inner Mongolia (mostly east of the 120 degree line of longitude¹²)
- Beijing MR, consists of the Beijing and Tianjin Garrisons and the Hebei, Shanxi, and Inner Mongolia (west to about the 107 degree line of longitude and east to about the 120 degree line of longitude) MDs
- Lanzhou MR, consists of the Shaanxi, Gansu, Qinghai, Ningxia, Xinjiang, Nanjiang (southern Xinjiang) MDs and the western part of Inner Mongolia (east to about the 107 degree line of longitude)
- Jinan MR, consists of the Shandong and Henan MDs
- Nanjing MR, consists of the Shanghai Garrison and the Jiangsu, Zhejiang, Anhui, Fujian, and Jiangxi MDs
- Guangzhou MR, consists of the Hunan, Guangdong, Guangxi, Hainan, and Hubei MDs
- Chengdu MR, consists of the Chongqing Garrison and the Sichuan, Xizang (Tibet), Guizhou, and Yunnan MDs.

PLA Headquarters, Leadership, and Department Terminology

This subsection provides information about PLA headquarters, leadership, and department terminology.

Headquarters Terminology

For the most part, the PLA does not have a specific term for headquarters. For example, the terms *junqu* (军区) refer to a Military Region as well as the Military Region Headquarters. The meaning is usually obvious from the context. *Junqu siling bu* (军区司令部) is often mistranslated as Military Region Headquarters, when, in fact, it is the Military Region Headquarters Department.

The one exception is that the PLA has begun to use the term *zhihui bu* (联合指挥部) to refer to existing organizations that are designated as a “command headquarters” during wartime.¹³

Leadership Terminology

The PLA has multiple terms for its leaders and leadership organizations. The key terms are discussed below.

¹² The boundaries of the Shenyang, Beijing, and Lanzhou MRs are depicted differently from previous maps of the Military Regions in the Office of the Secretary of Defense, Annual Report to Congress, Military and Security Developments Involving the People’s Republic of China 2011,” p. 73.

¹³ Zhang Yuliang, Editor, *Science of Campaigns* (战役学), Beijing: National Defense University Press, May 2006.

Lingdao (领导), *zhuguan* (主官), and *shouzhang* (首长): Various Chinese dictionaries translate these three terms as follows: *lingdao* is translated as leader(s), leadership, or leading; *shouzhang* is translated as leading cadre or leading officer; and *zhuguan* is translated as principal officer. For all practical purposes these three terms are synonymous, which can generically be called the command staff. Based on interviews with PLA officers, the PLA's command staff includes the commander, political commissar (PC), deputy commanders, deputy PCs, and directors of the Headquarters, Political, Logistics, and Equipment/Armament Departments. Furthermore, based on the interviews, the only real difference among *lingdao*, *shouzhang*, and *zhuguan*, is that *zhuguan* do not include the deputy commanders and deputy political commissars.

Zhihuiyuan (指挥员): *Zhihuiyuan* appears to be the generic term for commander compared to specific terms such as *silingyuan* (司令员) or *zhang* (长), as in division commander (师长). Based on how *zhihuiyuan* is used, it sometimes refers to a single person and other times it refers to the leaders (领导) and principal officers (主官) as a group, to include the commander, political commissar, deputy commanders, deputy political commissars, and directors of the four first-level departments (Headquarters, Political, Logistics, and Equipment). The *Air Force Dictionary* translates *zhihuiyuan* as commander and defines it as the leading cadre (领导干部) at each level who are responsible for combat/operations command (作战指挥). The commander's primary combat/operations responsibilities are organize intelligence and reconnaissance (情报侦察), issue decisions (定下决心), clarify missions/tasks (明确任务), formulate combat plans (制定作战计划), organize coordinated actions and support (组织协同动作和各种保障) [within the PLAAF and with other services and branches], inspect combat preparations situation (检查作战准备情况), and implement battlefield coordination and control (实施战场协调与控制)¹⁴ According to *PLA Military Terminology*, which does not translate each term into English, *zhihuiyuan* is 1) The principal military [track] officer(s) (军事主官) at every level in the military; 2) The leading cadre (领导干部) at each level who is/are responsible for combat/operations command (作战指挥) or military functional work (军事行政工作); 3) The general term (泛称) for military cadre.¹⁵ It is also defined as the officer(s) who is/are responsible for all command of combat/operations at a particular level (对本级作战负责全部指挥负责的军官).¹⁶

Zhihui jinguan (指挥军官) and *zhihui ganbu* (指挥干部): According to various PLA publications, such as the *Military Cadre Work* volume of the *China Military Encyclopedia*, *zhihui jinguan* is translated as commanding officer and is defined as officers who have the grade of platoon leader and above and are in one of the four PLA officer career tracks—military, political, logistics, and equipment—and are identified as military commanding officers (军事指挥军官), political commanding officers (政治智慧军官), logistics commanding officers (后勤指挥军官), and equipment commanding officers (装备指挥军官). These tracks are discussed later

¹⁴ Zhu Rongchang, ed. *Air Force Dictionary*, p. 71.

¹⁵ *PLA Military Terminology*, 1997, p. 132 and 2011, p. 171.

¹⁶ Sun Ruling, *Basic Introduction to Combat/Operations Command* (作战指挥基础概论), Beijing: National Defense University Press, May 2011, p. 101.

in Part 1. Commanding officers are categorized by their career track, grade, missions/tasks, and by their service and branch.¹⁷

Canmouzhang (参谋长): *Canmouzhang* is translated as chief of staff. According to *Discussion of Headquarters Department Building*, the chief of staff is the director of the Headquarters Department (司令部部长).¹⁸ In 1996, the CMC approved *PLA Headquarters Department Regulations* (中国人民解放军司令部条例), which specified the chief of staff's responsibilities. First, the regulations state that the responsibilities identified in the previous regulations that "the chief of staff at each level is the unit's chief of staff" was changed to read "the chief of staff is one of the members of the units' command staff (参谋长是部队的首长之一)." Furthermore, the regulations clarified that, as one of the members of the units' command staff, "the chief of staff assists the principal officers (e.g., other members of the command staff) lead military building (协助主官领导军事建设); he is the primary person responsible for organizing and coordinating commanding military actions (指挥军事行动的主要组织者和协调者); and he directly organizes and leads the building and work of the Headquarters Department (直接组织领导司令部的建设和工作)." The regulations further specify the following four issues:

- As one of the members of the units' command staff, the chief of staff is considered one of the unit's leaders along with the principal officers and deputy grade command staff.
- The chief of staff assists the principal officers with their work, is directly responsible to the principal officers (military and political officers as one), and has "overall responsibility" for assisting the principal officers with military work.¹⁹
- Concerning military work, the chief of staff is the "primary organizer" among the multitude of people who assist the principal officers. The chief of staff has the responsibility for organizing overall unit military building and commanding unit military actions based on the principal officers' decisions, resolutions, and intentions.
- The chief of staff is the "primary organizer" responsible for implementing the principal officers' decisions, determination, and intentions. He is also responsible for coordinating all of the relevant military building work and military actions with the unit's Headquarters Department, Political Department (Division), Logistics Department (Division), and Equipment Technical Department (Division).

According to *Science of Campaigns*, "besides being one of the commanding personnel, the chief of staff and participating along with the command staff in all command activities, the chief of staff is primarily responsible for coordinating and executing everything within the Headquarters Department concerning the campaign decision, plan, and control, as well as guiding the relevant

¹⁷ "Commanding Officer" (指挥军官) in Xu Yaoyuan, ed., *Military Cadre Work* (军队干部工作), 84, in *China Military Encyclopedia* (Second Edition), November 2006. Su Shubo, Yang Qi, Yu Zhiyong, and Lin Cheng, eds., *Military Cadre Work Handbook* (军队干部工作手册), Beijing: National Defense University Press, May 2011, p. 35-36.

¹⁸ *Discussion of Headquarters Department Building*, p. 152-153.

¹⁹ Note, "military work" (军事工作) refers to everything that comes out of the Headquarters Department, as compared to political work, logistics work, and equipment work. It also equates to anything that officers in the "military career track" are involved in.

work by the Logistics Department and Equipment Department”.²⁰

Is it General Staff Headquarters or General Staff Department?

China Military Encyclopedia (1997 and 2007) and the *China's National Defense* in 1998 translated *zongcanmou bu* (总参谋部) as General Staff Department. Since 2000, *China's National Defense* and the Ministry of National Defense website (created in 2009) have used General Staff Headquarters, along with department for the three other general departments.²¹ Meanwhile, DoD's Annual Report to Congress has consistently used General Staff Department (GSD).

Is It General Equipment, Armaments, or Armament Department?

In 1998, the PLA created the *zongzhuangbei bu* (总装备部) by merging the military personnel in the existing Commission for Science, Technology, and Industry for National Defense (COSTIND/科工委) with the General Staff Department's Equipment Department (装备部) and the General Logistics Department's Ordnance/Armament Department (军械部), along with the relevant weapons and equipment research and development (R&D) organizations into a new general department.²² The Chinese name given to the department was *zongzhuangbei bu*, which, literally translated is General Equipment Department. However, based on interviews with PLA officials, there was a debate within the PLA as to the actual mission of the new department, which was responsible for overseeing the birth-to-death of all PLA weapons and equipment. Many believed that it went beyond equipment and should encompass ordnance/armament. The compromise was to call it *zongzhuangbei bu* in Chinese but General Armaments Department (GAD) in English. Although the 1998 edition of *China's National Defense* translated it as General Armament Department, all successive biennial editions of *China's National Defense* and the Ministry of National Defense's website have translated it as General Armaments Department. On the other hand, the 2007 edition of *China Military Encyclopedia* translates it as General Equipment Department.²³ Meanwhile, DoD's 2002 Annual Report to Congress first identified it as the General Equipment Department (GED). Since 2006, it has inconsistently used General Armament Department (GAD) and General Armaments Department.

For purposes of this book, General Armament Department (GAD) is used. Even though the book uses General Armament Department, it uses Equipment Department rather than Armament Department for the equivalent departments in the services and branches.

²⁰ *Science of Campaigns*, p. 130.

²¹ See <http://eng.mod.gov.cn/ArmedForces/index.htm>. Neither *China's National Defense* nor the Ministry of National Defense website has used an acronym, such as GSH or GSD, for the General Staff Department/Headquarters.

²² The PLA's term *junxie* (军械) can be translated as ordnance or armament.

²³ *Military Structure* (军制), Vol 1, *China Military Encyclopedia* (Second Edition), December 2007, p. 81-82. *China's Military Encyclopedia's* (Second Version) *PLA Military History* (中国人民解放军军史), December 2007, Vol 1, p. 69-71.

Department Terminology

Jiguan (机关) and *si da bu* (四大部): These are best translated as administrative and functional departments.²⁴ For all practical purposes, these terms are synonymous and refer to the PLA's Four General Departments (GSD, GPD, GLD, and GAD), as well as the four departments in lower echelon headquarters—Headquarters Department (司令部), Political Department (政治部), Logistics Department (后勤部), and Equipment Department (装备部).²⁵ The PLA also considers the four General Departments (四总部)—General Staff Department or GSD (*zong canmou bu*; 总参谋部), General Political Department or GPD (*zong zhengzhi bu*; 总政治部), General Logistics Department or GLD (*zong houqin bu*; 总后勤部), and General Armament Department or GAD (*zong zhuangbei bu*; 总装备部)—as departments (*jiguan*) for the CMC.

Siling bu (司令部) and *Canmouzhang* (参谋长): The PLA translates *si ling bu* as Headquarters Department and *canmouzhang* as chief of staff. Note that the PLA does not have a term that translates as headquarters, such as a military region (MR) headquarters or PLAAF Headquarters. For example, the term *kongjun* (空军) refers to the PLAAF in general or to PLAAF Headquarters, and the exact meaning is usually clear from the context. *Kongjun siling bu* (空军司令部) or *kongsi* (空司) is often mistranslated as PLAAF Headquarters, but it refers to the PLAAF's Headquarters Department not PLAAF Headquarters. In the PLA, the chief of staff is the director of the Headquarters Department. He is not equivalent to the chief of staff in a U.S. military organization.

Xingzheng bumen (行政部门): The best translation is administrative department(s). No Chinese military dictionaries provide a good definition of this term, but they do have groups of terms under this category. Based on the term's usage in PLA writings and interviews with PLA officials, the term generally refers to the Logistics Department and Equipment Department and to most of their subordinate organizations. It also refers to some, but not all, of the subordinate organizations in Headquarters and Political Departments. These departments conduct work that impacts upon daily life, including support, supplies, and housing.

Yewu bumen (业务部门): The best translation is functional department(s). No available Chinese military dictionaries provide a good definition of this term. Based on the term's usage in PLA writings and interviews with PLA officials, the term generally refers to anything that impacts on operations. Specific functional departments include operations, intelligence, training, finance, and health.

Academic Institutions

There are five key terms affiliated with the PLA's academic institutions. Each of them is discussed below.

²⁴ Academic institutions have two types of “departments.” *Jiguan* (机关) and *bumen* (部门) include the administrative and functional departments (Training Department, Political Department, Basic Department, and Scientific Research Department), and academic departments (*xi*; 系). In most, if not all, of our studies we identify these as “academic departments” to make the distinction.

²⁵ Some dictionaries and Chinese English translations of PLA materials translate *jiguan* as organ.

Yuanxiao (院校): This is the generic term for all of the military's education organizations. It is often translated as universities and colleges, universities and schools, colleges and schools, or academies and schools, etc. The best translation is academic institutions. It is often seen as *jundui yuanxiao* (军队院校), which is best translated as military academic institutions, because it also includes the PAP as well as the PLA.

Daxue (大学): This is best translated as university. Although this is a *daxue*, the commandant/president is identified as a *xiaozhang* (校长).

Xueyuan (学院): This is the most confusing of all the institution names. Although it is simply a *xueyuan* in Chinese, it is often translated in English as college, academy, institute, or school. Therefore, the problem is not the Chinese term but the English translation. One will find a combination of all of them in the China National Knowledge Infrastructure (CNKI) database and on the web. For example, *gongcheng xueyuan* (工程学院) might be noted as the College of Engineering, Engineering Academy, Institute of Engineering, and School of Engineering. The best place to find the "official" English name is the institutions' website; however, not every institution has its own website, and many of those that have one do not have an English translation. Even though several PLA dictionaries and encyclopedias have entries for some or all of the institutions, there is oftentimes a lack of consistency in the translation. As a result, analysts will have to make a decision on which one to use based on all of the sources available.

Xuexiao (学校): The best translation is school. In the mid-1980s, the PLA upgraded all of its existing officer *xuexiao* to *xueyuan*. Today, the only remaining *xuexiao* are the six noncommissioned officer (NCO) schools (士官学校). Each NCO school specializes in only a few areas, such as the Air Force Dalian Communications School and the Wuhan Ordnance NCO School, and offers only secondary and senior technical degrees, not bachelor's degrees; however, 29 officer institutions offer secondary and/or senior technical degree programs for NCOs.

Xi (系): The best translation is academic department so as not to confuse it with an administrative and functional department (部).

Grade Terminology²⁶

The PLA has several terms individually and combinations thereof that are translated as grades:

- *Deng* (等) is translated as grade
- *Ji* (级) is translated as level or grade
- *Dengji* (等级) is translated as grade
- *Jibie* (级别) is translated as level or grade
- *Zhiwu dengji* (职务等级) together is translated as grade, but PLA books usually translate *zhiwu* (职务) as post as compared to *gangwei* (岗位) which refers to a billet.
- *Junxian dengji* (军衔等级) refers to the relationship between ranks and grades

²⁶ This information was accessed at "System of Cadre Grades," in *China Military Encyclopedia* (Second Edition), December 2006, *Military Cadre Work* (军队干部工作) Volume 39, p. 48-50.

Informatization/Informatized

Xinxihua (信息化): Depending on the context, the best translation for *xinxihua* is informatization or informatized, but it is also known as informationization. Informatization, broadly, refers to the utilization of information technology (IT) by government, military, academia, and industry to promote innovation, enhance productivity, and improve the quality of economic growth and social development. China's central government released a 2006-2020 National Informatization Development Strategy outlining its objectives for informatizing its society and infrastructure. China's concept of informationization is based on Deng Xiaoping theory, Jiang Zemin's "Three Represents" ideology, and Hu Jintao's scientific development concept.

Appendix 2: PLA and PAP Grade and Rank Structure

Appendix B provides eight tables showing key billets for organizations with the following grades along with the primary and secondary ranks for the officers holding the billets:

- CMC Member (Four General Departments)
- Military region leader
- Military region deputy leader
- Corps leader
- Corps deputy leader
- Division leader grade
- Division deputy leader grade
- Regiment leader grade
- PAP grade structure

In the following tables, “leader” refers to the commander, political commissar (PC), deputy commanders, and deputy PCs. Note that, even though NDU, AMS, academic institutions, and research institutions have different administrative and functional department structures than the other combat/operational and support organizations, there is a logical grade structure from top to bottom.

Table 11 provides the grade structure for the Four General Departments (GSD, GPD, GLD, and GAD). Whereas second-level departments (部门) include departments (部) and bureaus (局), third-level departments include departments, bureaus, and divisions (处).

Table 11: CMC Member Organizations (Four General Departments)

Grade	GSD (Ranks)	GPD (Ranks)	GLD (Ranks)	GAD (Ranks)
CMC Member	Chief of the General Staff (GEN)	Director (GEN)	Director (GEN)	Director (GEN)
MR Leader	Deputy Chiefs (GEN/LTG)	Deputy Directors (GEN/LTG)	Political Commissar (GEN)	Political Commissar (GEN)
MR Deputy Leader			Deputy Directors & PCs (LTG/MG)	Deputy Directors & PCs (LTG/MG)
Corps Leader	2 nd Level Departments & Directors (MG/LTG)	2 nd Level Departments & Directors (MG/LTG)	2 nd Level Departments & Directors (MG/LTG)	2 nd Level Departments & Directors (MG/LTG)
Corps Deputy Leader	2 nd Level Department Deputies (MG/SCOL) ¹	2 nd Level Department Deputies (MG/SCOL)	2 nd Level Department Deputies (MG/SCOL)	2 nd Level Department Deputies (MG/SCOL)
Division Leader	3 rd Level Departments & Directors (SCOL/MG)	3 rd Level Departments & Directors (SCOL/MG)	3 rd Level Departments & Directors (SCOL/MG)	3 rd Level Departments & Directors (SCOL/MG)
Division Deputy Leader	3 rd Level Deputy Directors (COL/SCOL)	3 rd Level Deputy Directors (COL/SCOL)	3 rd Level Deputy Directors (COL/SCOL)	3 rd Level Deputy Directors (COL/SCOL)

Table 12 shows the structure for military region leader-grade organizations, which include what the PLA calls “12+1.” The “12” refers to the seven MR Headquarters, PLAN Headquarters, PLAAF Headquarters, PLASAF Headquarters, NDU, and AMS, and the “1” refers to PAP Headquarters. It also includes the GAD’s Science and Technology Commission (总装科技委员会). The first-level departments (部门) for each organization other than AMS, NDU, and the S&T Commission are departments (部) that have subordinate second-level departments (部), which, in turn, have subordinate third-level divisions (处).

¹ The Meteorological & Hydrological Bureau, which is a third-level department under the GSD Operations Department, is also a corps deputy leader-grade organization.

Table 12: Military Region Leader Organizations

Grade	Leaders (Ranks)	Headquarters Department (Ranks)	Political Department (Ranks)	Logistics Department (Ranks)	Equipment Department (Ranks)
CMC Member	PLAN, PLAAF, & PLASAF Commander (GEN)				
MR Leader	MR Commander; MR, PLAN, PLAAF, and PLASAF PC (GEN/LTG)				
MR Deputy Leader	Deputy Commanders & Deputy PCs (LTG/MG)	Chief of Staff (LTG/MG)	Director (LTG/MG)		
Corps Leader		Deputy Chiefs of Staff (MG/LTG)	Deputy Directors (MG/LTG)	Director/PC (MG/LTG)	Director/PC (MG/LTG)
Corps Deputy Leader				Deputy Directors (MG/SCOL)	Deputy Directors (MG/SCOL)
Division Leader		2 nd Level Departments & Directors (SCOL/MG)	2 nd Level Departments & Directors (SCOL/MG)	2 nd Level Departments & Directors (SCOL/MG)	2 nd Level Departments & Directors (SCOL/MG)
Division Deputy Leader		2 nd Level Deputy Directors (COL/SCOL)	2 nd Level Deputy Directors (COL/SCOL)	2 nd Level Deputy Directors (COL/SCOL)	2 nd Level Deputy Directors (COL/SCOL)
Regiment Leader		3 rd Level Departments and Directors (COL/LTC)	3 rd Level Departments and Directors (COL/LTC)	3 rd Level Departments and Directors (COL/LTC)	3 rd Level Departments and Directors (COL/LTC)
Regiment Deputy Leader		3 rd Level Deputy Directors (LTC/MAJ)	3 rd Level Deputy Directors (LTC/MAJ)	3 rd Level Deputy Directors (LTC/MAJ)	3 rd Level Deputy Directors (LTC/MAJ)

Table 13 shows the structure for military region deputy leader-grade organizations, which include those in the following list. With the exception of the Hong Kong Garrison and Xinjiang and Tibet Military Districts, the commander of each of the other organizations is concurrently a military region deputy commander, and some, but not all, of their political commissars are concurrent military region deputy political commissars. Each first-level department (部门) is a department (部) that has subordinate second-level divisions (处) and third-level offices (科).

- 7 MRAF Headquarters
- 3 PLAN Fleet Headquarters
- Beijing Garrison and Hong Kong Garrison
- National University of Defense Technology (NUDT)
- Xinjiang Military District and Tibet Military District

Table 13: Military Region Deputy Leader Organizations

Grade	Leaders (Ranks)	Headquarters Department (Ranks)	Political Department (Ranks)	Logistics Department (Ranks)	Equipment Department (Ranks)
MR Deputy Leader	MRAF, Fleet, & Beijing Garrison Commander/PC (LTG/MG)				
Corps Leader	Deputy Commanders & Deputy PCs (MG/LTG)	Chief of Staff (MG/LTG)	Director (MG/LTG)		
Corps Deputy Leader		Deputy Chiefs of Staff (MG/SCOL)	Deputy Directors (MG/SCOL)	Director/PC (MG/SCOL)	Director/PC (MG/SCOL)
Division Leader				Deputy Directors (SCOL/MG)	Deputy Directors (SCOL/MG)
Division Deputy Leader		2 nd Level Departments & Directors (COL/SCOL)			
Regiment Leader		2 nd Level Deputy Directors (COL/LTC)			
Regiment Deputy Leader		3 rd Level Departments and Directors (LTC/MAJ)			
Battalion Leader		3 rd Level Deputy Directors (CPT/MAJ)			

Table 14 shows the structure for corps leader-grade organizations shown below. Each first-level department (部门) is a department (部) that has subordinate second-level divisions (处) and third-level offices (科).

- 18 group armies (the PLA calls these army combined corps)
- Second Artillery bases
- 15th Airborne Corps
- 3 garrisons (Tianjin, Shanghai, Chongqing)
- 25 of the 27 military districts
- GAD satellite launch centers
- Some PLA academic institutions
- Some PLA academies/colleges and universities
 - Academic institutions have a Training Department (训练部) that serves as the Headquarters Department, a Political Department (政治部), a School/College/Academy Affairs Department (校务部/院务部) that manages the facilities, and a Graduate School (研究生院)
 - Some academic institutions also have a Scientific Research Department (科研部)
- Almost all General Department second-level departments and bureaus [Note: The GSD's third-level Meteorological and Hydrological Bureau (总参作战部气象水文局) and Survey, Mapping, and Navigation Bureau (总参测绘导航局), which are under the Operations Department, are an exception and are corps deputy leader-grade organizations.]
- GAD space mission-related and weapons testing bases
- Beijing and Xinjiang PAP *zongdui* headquarters

Table 14: Corps Leader Organizations

Grade	Leaders (Ranks)	Headquarters Department (Ranks)	Political Department (Ranks)	Logistics Department (Ranks)	Equipment Department (Ranks)
Corps Leader	Commander/PC (MG/LTG)				
Corps Deputy Leader	Deputy Commanders & Deputy PCs (MG/SCOL)	Chief of Staff (MG/SCOL)	Director (MG/SCOL)		
Division Leader		Deputy Chiefs of Staff (SCOL/MG)	Deputy Directors (SCOL/MG)	Director/PC (SCOL/MG)	Director/PC (SCOL/MG)
Division Deputy Leader				Deputy Directors/PCs (COL/SCOL)	Deputy Directors/PCs (COL/SCOL)
Regiment Leader		2 nd Level Departments & Directors (COL/LTC)			
Regiment Deputy Leader		2 nd Level Deputy Directors (LTC/MAJ)			
Battalion Leader		3 rd Level Departments & Directors (MAJ/LTC)			
Battalion Deputy Leader		3 rd Level Deputy Directors (CPT/MAJ)			

Table 15 shows the structure for corps deputy-leader grade organizations shown below. Each first-level department (部门) is a department (部) that has subordinate second-level divisions (处) and third-level offices (科):

- PLAN support bases
- Fleet aviation headquarters
- Some PLAAF Command Posts
- Some weapons testing bases
- Some PLA academies/colleges and universities
 - Academic institutions have a Training Department (训练部) that serves as the Headquarters Department, a Political Department (政治部), a School/College/Academy Affairs Department (校务部/院务部) that manages the facilities, and a

Graduate School (研究生院)

- Some academic institutions also have a Scientific Research Department (科研部)
- PLAN, PLAAF, and PLASAF Equipment Research Academies (装备研究院)
 - Each academy has an S&T Department (科技部) that serves as the Headquarters Department, a Political Department (政治部), and Academy Affairs Department (院务部) that manages the facilities

Table 15: Corps Deputy Leader Organizations

Grade	Leaders (Ranks)	Headquarters Department (Ranks)	Political Department (Ranks)	Logistics Department (Ranks)	Equipment Department (Ranks)
Corps Deputy Leader	Commander/PC (MG/SCOL)				
Division Leader	Deputy Commanders & Deputy PCs (SCOL/MG)	Chief of Staff (SCOL/MG)	Director (SCOL/MG)		
Division Deputy Leader		Deputy Chiefs of Staff (COL/SCOL)	Deputy Directors (COL/SCOL)	Director/PC (COL/SCOL)	Director/PC (COL/SCOL)
Regiment Leader				Deputy Directors/PCs (COL/LTC)	Deputy Directors/PCs (COL/LTC)
Regiment Deputy Leader		2 nd Level Departments & Directors (LTC/MAJ)			
Battalion Leader		2 nd Level Deputy Directors (MAJ/LTC)			
Battalion Deputy Leader		3 rd Level Departments & Directors (CPT/MAJ)			
Company Leader		3 rd Level Deputy Directors (CPT/1LT)			

Table 16 shows the structure for division leader-grade organizations as shown below. Each first-level department (部) has subordinate second-level offices (科):

- Army divisions
- Military Subdistricts (MSD/军区省份军区)

- PLAN garrisons and vessel *zhidui*
- PLAAF divisions and some command posts
- Second Artillery engineering *zongdui*
- Most PLA academic *xueyuan* and research institutes, but their administrative and functional organizations are organized different than operational and support organizations
- Most PLA training bases
- All PAP *zongdui* headquarters except for Beijing and Xinjiang

Table 16: Division Leader Organizations

Grade	Leaders (Ranks)	Headquarters Department (Ranks)	Political Department (Ranks)	Logistics Department (Ranks)	Equipment Department (Ranks)
Division Leader	Commander/PC (SCOL/MG)				
Division Deputy Leader	Deputy Commanders & Deputy PCs (COL/SCOL)	Chief of Staff (COL/SCOL)	Director (COL/SCOL)		
Regiment Leader		Deputy Chiefs of Staff (COL/LTC)	Deputy Directors (COL/LTC)	Director/PC (COL/LTC)	Director/PC (COL/LTC)
Regiment Deputy Leader				Deputy Directors/PCs (LTC/MAJ)	Deputy Directors/PCs (LTC/MAJ)
Battalion Leader		2 nd Level Departments & Directors (MAJ/LTC)			
Battalion Deputy Leader		2 nd Level Deputy Directors (CPT/MAJ)			

Table 17 shows the structure for division deputy leader-grade organizations, which include Army, Marine Corps, PLAAF, and PLASAF brigades. Each first-level department (部) has subordinate second-level offices (科). [Note: The PLA does not have a brigade leader or deputy leader grade. Brigade leaders hold the grade of division deputy leader, and brigade deputy leaders hold the grade of regiment leader.]

Table 17: Division Deputy Leader (Brigade Leader) Organizations

Grade	Leaders (Ranks)	Headquarters Department (Ranks)	Political Department (Ranks)	Logistics Department (Ranks)	Equipment Department (Ranks)
Division Deputy Leader	Commander/PC (COL/SCOL)				
Regiment Leader	Deputy Commanders & Deputy PCs (COL/LTC)	Chief of Staff (COL/LTC)	Director (COL/LTC)		
Regiment Deputy Leader		Deputy Chiefs of Staff (COL/LTC)	Deputy Directors (COL/LTC)	Director/PC (COL/LTC)	Director/PC (COL/LTC)
Battalion Leader				Deputy Directors/PCs (MAJ/LTC)	Deputy Directors/PCs (MAJ/LTC)
Battalion Deputy Leader		2 nd Level Departments & Directors (CPT/MAJ)			
Company Leader		2 nd Level Deputy Directors (CPT/1LT)			

Table 18 shows the structure for regiment leader-grade organizations, as shown below. Note that regiment headquarters have a Headquarters Department, but the Political, Logistics, and Equipment organizations are divisions (处) not departments. Each first-level department and division has subordinate second-level branches (股).

- Army regiments
- PLAN vessel dadui, destroyers, and some conventional powered submarines (Kilo, Song, Yuan)
- PLAAF regiments and airfield stations
- Training *dadui*
- Composite depots (综合仓库)

Table 18: Regiment Leader Organizations

Grade	Leaders (Ranks)	Headquarters Department (Ranks)	Political Division (Ranks)	Logistics Division (Ranks)	Equipment Division (Ranks)
Regiment Leader	Commander/PC (COL/LTC)				
Regiment Deputy Leader	Deputy Commanders & Deputy PCs (LTC/MAJ)	Chief of Staff (LTC/MAJ)	Director (LTC/MAJ)		
Battalion Leader		Deputy Chiefs of Staff (MAJ/LTC)	Deputy Directors (MAJ/LTC)	Director/PC (MAJ/LTC)	Director/PC (MAJ/LTC)
Battalion Deputy Leader				Deputy Directors/PCs (CPT/MAJ)	Deputy Directors/PCs (CPT/MAJ)
Company Leader		2 nd Level Departments (CPT/1LT)			
Company Deputy Leader		2 nd Level Deputy Directors (1LT/CPT)			

People’s Armed Police Organizational Structure

The bullets below provide general information about the grade structure for the PAP, which is based on the PLA’s 15-grade structure.² The organizational and grade structure, including first- and second-level departments, is the same as that for the MR, PLAN, PLAAF, and PLASAF Headquarters shown in Table 12. For more detail, see the PAP Chapter in this book.

- PAP Headquarters (总部) is an MR leader-grade organization
 - The Headquarters Department and Political Department are MR deputy leader-grade organizations
 - The Logistics Department and Equipment Department are corps leader-grade organizations
- Corps leader-grade organizations
 - Beijing and Xinjiang *zongdui* (总队)
 - Gold (黄金), Hydropower (水电), Communications (交通), and Forestry (森林) *zhihui bu* (指挥部)
- Corps deputy leader-grade organizations
 - All other province, municipality, and autonomous region *zongdui* (各省,直辖市,自治区武警总队)
- Division leader-grade organizations

² Information accessed at <http://blog.renren.com/share/232083560/7512174767> and *China Military Encyclopedia* (Second Edition), *Military Organization* (军制) Vol 1, p. 53-54, and Vol 2, p. 355-357.

- 14 mobile divisions (机动师), which are four-digit 86xx and 87xx organizations
- Gold, Hydropower, Communications, and Forestry *zongdui*
 - The Gold and Hydropower *zongdui* are numbered 1st to 3rd (e.g., 黄金第一总队)
 - The Communications *zongdui* are numbered 1st to 2nd
- Regiment leader-grade organizations
 - Subordinate *zhidui* (支队) to each type of division leader grade-organization noted above

Appendix 3: PLA Academic Institutions

This appendix includes information in Table 1 about the PLA's academic institutions prior to 2011, which is followed by a list of the known changes that occurred starting in 2011.

There does not appear to be a single PLA source, including chinamil.com (*PLA Daily online*), with an official list of all PLA academic institutions. Part of the reason for this is that several *xueyuan* and/or academic departments have merged into universities or been subordinated to universities. Some lists include them, while others do not. Other *xueyuan* have changed their name or been abolished. In addition, the PLAAF's seven flight colleges and six PLA NCO schools are sometimes, but not always, list in part or in full.

Table 19 provides a list of PLA academic institutions identified prior to 2011 from two sources:

- *Contemporary Military Academic Institution Education Dictionary*, which was published by National Defense University Press in July 2009.³ The list identifies only four of the six NCO schools and identifies PLAAF flight colleges in general but does not identify them individually.
- The 2007 edition of *China Military Encyclopedia* (中国军事百科全书) has a three-volume series that covers the PLA's history. Volume 3 of this series has an entry for all of the PLA's academic institutions that includes the English name, a short history, and the organizational structure.⁴ The entries include profiles of almost every PLA academic institution, including ones that have been abolished or merged with other institutions.

Prior to 2004, the Ministry of Education (教育部) created a National Code List for Institutions that Award Degrees (全国各学位授予单位代码). The list, which includes academic and research institutions, consists of a five-digit unit code (单位代码) and the official name (单位名称) for each institution.⁵ A new list was published in 2010 that includes what appears to be all of the PLA's academic institutions except the six NCO schools.⁶ The 2010 list includes several PLA institutions that were not on the pre-2004 list, and some of the numbers have changed. The most likely reason for this was that the first list did not have all of the PLA academic institutions, they were not in protocol order, some of the institutions have changed their name, and there were not enough empty spots left to accommodate changes. Table 19 provides the code for each of

³ *Contemporary Military Academic Institution Education Dictionary* (现代军校教育辞典), Beijing: National Defense University Press, July 2009, Section 14, p. 398-423. Additional information was accessed at <http://chn.chinamil.com.cn/jsyx/yxjs.htm>, <http://school.freekaoyan.com/>, and <http://xpb.xidian.edu.cn/show.aspx?id=456&cid=39> on 19 February 2011.

⁴ *China's Military Encyclopedia's* (Second Version) *PLA Military History* (中国人民解放军军史) Vol 3, Beijing: Encyclopedia of China Publishing House, December 2007.

⁵ Information accessed at www.ynni.edu.cn/grs/Ufl/article/ *全国各学位授予单位代码 on 16 February 2011*.

⁶ Information accessed at <http://njc.chinacourt.org/public/detail.php?id=48> and <http://njc.chinacourt.org/upload/1273742222466054636.doc> on 23 February 2011. The date of the information was 13 May 2010.

academic institution. The institutions appear to be organized using a basic protocol order of joint, Army, Navy, Air Force, and Second Artillery.⁷

It should be noted that, while Table 19 includes the English translation that is available in column two from the *Contemporary Military Academic Institution Education Dictionary* for each institution, they do not necessarily match those in column three from the *China Military Encyclopedia* or on china.mil. For example, the dictionary and encyclopedia both use Naval Command College, but the dictionary uses Naval Submarine College while the encyclopedia uses Navy Submarine Academy. The biggest difference is whether *xueyuan* is translated as college or academy, while in some cases it is translated as university. Therefore, given the different translations available, the names in Table 19 are merely representative of the official name and should not necessarily be taken as the official name. The table also includes the grade identified for each institution.⁸

Table 19: Pre-2011 PLA Academic Institutions, MOE Codes, and Grade

Chinese Name	English Name (Dictionary)	English Name (Encyclopedia)	MOE Code	Grade
国防大学	National Defense University		90001	MR Ldr
国防科学技术大学	National Defense University of Science and Technology	National University of Defense Technology	90002	MR Dep Ldr
石家庄陆军指挥学院	Shijiazhuang Army Command College		90003	Corps Ldr
南京陆军指挥学院	Nanjing Army Command College		90004	Corps Ldr
信息工程大学	PLA Information and Engineering University		90005	Corps Ldr
解放军理工大学	PLA Technology University	PLA University of Science and Technology	90006	Corps Ldr
国际关系学院	PLA International Studies University	PLA Institute of International Relations	90007	Corps Dep Ldr
解放军外国语学院	PLA University of Foreign Languages		90008	Corps Dep Ldr
通信指挥学院	Communication and Command College		90009	Corps Dep Ldr
重庆通信学院	Chongqing Communication College		90010	Div Ldr
西安通信学院	Xi'an Communication College		90011	Div Ldr
炮兵指挥学院	Artillery Commanding College	Artillery Command College	90012	Corps Dep Ldr
炮兵学院	Artillery College	Artillery Academy	90013	Corps Dep Ldr
沈阳炮兵学院	Shenyang Artillery College	Shenyang Artillery Academy	90014	Div Ldr
防空兵指挥学院	Air Defence Forces Command College		90015	Corps Dep Ldr
蚌埠坦克学院	Bengbu Tank College	Bengbu Tank Academy	90016	Div Ldr
工程兵指挥学院	Engineer Corps Commanding College	Engineer Corps Command College	90017	Corps Dep Ldr

⁷ See <http://wenku.baidu.com/view/655f7f170b4e767f5acfce11.html> for information about AMS's 2011 recruitment for 36 master's degree students and www.cnki.net/kcms/detail/Detail.aspx?dbname=CJFD2010&filename=JSYC201003022 for information about AMS's 2011 recruitment for 39 doctoral students.

⁸ Information accessed at <http://wenda.sogou.com/question/9755072.html> on 23 June 2012.

防化指挥工程学院	Chemical Defense Command and Engineering College		90018	Corps Dep Ldr
解放军电子工程学院	Electronic Engineering College		90019	Corps Dep Ldr
陆军航空兵学院	Army Aviation Corps College	Army Aviation College	90020	Corps Dep Ldr
南京政治学院	Nanjing Political Institute	Nanjing Political College	90021	Corps Dep Ldr
西安政治学院	Xi'an Political Institute	Xi'an Political College	90022	Corps Dep Ldr
解放军艺术学院	PLA Art Institute	PLA Art College	90023	Corps Dep Ldr
后勤指挥学院	Logistic Command College	Logistics Command Academy	90024	Corps Ldr
后勤工程学院	Logistic Engineering College	Logistical Engineering University	90025	Corps Dep Ldr
军事经济学院	Military Economics College	Military Economic College	90026	Corps Dep Ldr
军事交通学院	Military Transportation College	Military Communications College	90027	Corps Dep Ldr
汽车管理学院	Vehicle Management College		90028	Div Ldr
镇江船艇学院	Zhenjiang Vessels College	Zhenjiang Ship College	90029	Div Ldr
第二军医大学	Second Military Medical University		90030	Corps Dep Ldr
第三军医大学	Third Military Medical University		90031	Corps Dep Ldr
第四军医大学	Fourth Military Medical University		90032	Corps Dep Ldr
装备指挥技术学院	Academy of Equipment Command Technology	Institute of Command and Technology of Equipment	90033	Corps Ldr
装甲兵工程学院	Armored Corps Engineering College	Armored Force Engineering College	90034	Corps Dep Ldr
军械工程学院	Ordnance Engineering College		90035	Corps Dep Ldr
武汉军械士官学校	Wuhan Ordnance Sergeant School	Wuhan Ordnance Noncommissioned Officer School		Div Ldr
海军指挥学院	Naval Command College		90037	Corps Ldr
海军工程大学	Naval Engineering University		90038	Corps Ldr
海军航空工程学院	Naval Aeronautical and Astronautical College	Naval Aviation Engineering Academy	90039	Corps Dep Ldr
海军大连舰艇学院	Naval Dalian Ship College	Dalian Naval Ship Academy	90040	Corps Dep Ldr
海军兵种指挥学院	Naval Arms Command College	Naval Arms Command Academy	90041	Corps Dep Ldr
海军潜艇学院	Naval Submarine College	Naval Submarine Academy	90042	Corps Dep Ldr
海军飞行学院	Naval Flight College	Naval Flight Academy	90043	Div Ldr
海军蚌埠士官学校	Naval Bengbu NCO School	Bengbu Naval Petty Officers Academy		Div Ldr
空军指挥学院	Air Force Command College		90044	Corps Ldr

空军工程大学	Air Force Engineer University	Air Force Engineering University	90045	Corps Ldr
空军航空大学	Air Force Aviation University		90046	Corps Dep Ldr
空军雷达学院	Air Force Radar College ⁹		90047	Corps Dep Ldr
桂林空军学院	Guilin Air Force College		90048	Div Ldr
徐州空军学院	Xuzhou Air Force College	Xuzhou Air Force Academy ¹⁰	90049	Div Ldr
空军第一航空学院	Air Force First Aviation [Technology] College ¹¹	Air Force First Aviation [Technology] College	90050	Div Ldr
空军第一飞行学院	Air Force First Flight College		90051	Div Ldr
空军第二飞行学院	Air Force Second Flight College		90052	Div Ldr
空军第三飞行学院	Air Force Third Flight College		90053	Div Ldr
空军第四飞行学院	Air Force Fourth Flight College		90054	Div Ldr
空军第五飞行学院	Air Force Fifth Flight College		90055	Div Ldr
空军第六飞行学院	Air Force Sixth Flight College		90056	Div Ldr
空军第十三飞行学院	Air Force Thirteenth Flight College		90057	Div Ldr
空军大连通信士官学校	Air Force Dalian Communications School	Dalian Air Force Communication Noncommissioned Officer School		Div Ldr
第二炮兵指挥学院	Second Artillery Command College		90058	Corps Ldr
第二炮兵工程学院	Second Artillery Engineering College		90059	Corps Dep Ldr
第二炮兵青州士官学校	Second Artillery Qingzhou NCO School	Qingzhou Second Artillery Noncommissioned Officer School		Div Ldr
西安陆军学院	Xi'an Army College	Xi'an Military Academy	90061	Div Ldr
南昌陆军学院	Nanchang Army College	Nanchang Military Academy	90062	Div Ldr
昆明陆军学院	Kunming Army College	Kunming Army Academy	90063	Div Ldr

PLA Academic Institution Name Changes Starting in 2011

In 2011, the PLA began implementing academic institution reforms, including abolishing, merging, and/or changing the names of several institutions as noted below. Although not stated in the source material, some of the grades may have changed.¹²

- The Artillery Command Academy (炮兵指挥学院) in Xuanhua, Hebei Province, was disbanded and became a new GSD Artillery Training Base (总参炮兵训练基地) and

⁹ Became the Air Force Early Warning College (空军预警学院) in 2011.

¹⁰ Became the Air Force Logistics College (空军勤务学院) in 2011.

¹¹ This college provides aircraft maintenance education and training.

¹² Dennis Blasko provided most of the information concerning these changes.

elements of the former command academy were incorporated into the Nanjing Artillery Academy discussed below¹³

- The Nanjing Artillery Academy (南京炮兵学院) in Nanjing, Jiangsu Province, merged “a PLA artillery command academy in Hebei province with another artillery school in Nanjing”¹⁴
- The Communication Command Academy in Wuhan, Hubei Province, (武汉的通信指挥学院) was renamed the National Defense Information Academy (国防信息学院)¹⁵
- The Air Defense Command Academy (防空兵指挥学院) in Zhengzhou was renamed the Air Defense Academy (防空兵学院)¹⁶
- The Chemical Defense Command and Engineering Academy (防化指挥工程学院) in Beijing’s Changping District has been renamed the Chemical Defense Academy (防化学院)¹⁷
- The Engineer Command Academy (工程兵指挥学院) in Xuzhou, Jiangsu Province, has been renamed the Engineer Academy (工程兵学院)¹⁸
- The Logistics Command Academy (后勤指挥学院) in Beijing has become the Logistics Institute (后勤学院)¹⁹
- The Armament Command and Technology Academy (装备指挥技术学院) in Huairou, outside of Beijing has become the Armament Academy (装备学院)²⁰
- The Hefei Artillery Academy (合肥的炮兵学院) in Hefei, Anhui Province, changed its name to the Army Officer Academy (陆军军官学院)²¹
- The Xi’an Army Academy (西安陆军学院) in Xi’an, Shaanxi Province, has become the Border Defense Academy (解放军边防学院)²²
- The Bengbu Tank Institute (蚌埠坦克学院) in Bengbu, Anhui Province, has been renamed the Armored Force Academy (装甲兵学院)²³
- Bethune Military Medical NCO School (白求恩医务士官学校) in Shijiazhuang, Hebei Province, was formed out of the Bethune Army Medical College (白求恩军医学院)²⁴
- The Bengbu Vehicle Noncommissioned Officer Academy (蚌埠汽车士官学校) in Bengbu, Anhui Province, was formed out of the Vehicle Management Academy (汽车管理学院)²⁵

¹³ www.chinamil.com.cn/jfjbmap/content/2011-11/06/content_70510.htm.

¹⁴ http://eng.mod.gov.cn/DefenseEducation/2011-11/08/content_4313425.htm.

¹⁵ http://chn.chinamil.com.cn/ll/2012-01/09/content_4763254.htm.

¹⁶ http://chn.chinamil.com.cn/ll/2012-01/09/content_4763254.htm.

¹⁷ http://chn.chinamil.com.cn/ll/2012-01/09/content_4763254.htm.

¹⁸ http://chn.chinamil.com.cn/ll/2012-01/09/content_4763254.htm.

¹⁹ http://chn.chinamil.com.cn/ll/2012-01/09/content_4763254.htm.

²⁰ http://chn.chinamil.com.cn/ll/2012-01/09/content_4763254.htm.

²¹ www.chinamil.com.cn/jfjbmap/content/2011-08/28/content_65703.htm.

²² www.chinamil.com.cn/jfjbmap/content/2011-09/13/content_66914.htm.

²³ www.chinamil.com.cn/jfjbmap/content/2012-02/28/content_79205.htm.

²⁴ http://chn.chinamil.com.cn/yy/2012-05/22/content_4870867.htm.

²⁵ http://chn.chinamil.com.cn/jx/2012-02/28/content_4802581.htm.

- The Naval Flight Academy (海军飞行学院) in Huludao, Liaoning Province, and two Naval training bases (海军的两个训练基地) merged to become the Naval Aviation Academy (海军航空兵学院)²⁶
- The Naval Arms Command Academy (海军兵种指挥学院) in Guangzhou, Guangdong Province, was changed to become the PLAN Marine Corps Academy (海军陆战学院)²⁷
- The Guilin Air Force Academy (桂林空军学院), in Guilin, Guizhou Province, was transformed into the PLAAF Airborne College (空降兵学院)²⁸ (Note: Prior to 1999, this college was the PLAAF's Antiaircraft Artillery College. In 1999, it began including cadet education training for airborne officers. It is not clear where the PLAAF is now educating and training its AAA officers.)
- The PLAAF Radar College (武汉的空军雷达学院) in Wuhan, Hubei Province, was renamed the Air Force Early Warning College (空军预警学院)²⁹
- The Xuzhou Air Force College (徐州空军学院) in Xuzhou, Jiangsu Province, was renamed the Air Force Logistics College (空军勤务学院).³⁰ Although the English name (Logistics College) is now the same as it was from 1993 to 2004, the Chinese term for logistics was changed from *houqin* (后勤) to *qinwu* (勤务), which is usually translated as "service." According to *Military Dictionary*, *qinwu* refers to units and subunits that carry out specialized support missions.³¹ The dictionary does not have an entry for *houqin*.
- The Second Artillery Engineering Academy (二炮工程学院) in Xi'an, Shaanxi Province, was changed to the Second Artillery Engineering University (二炮工程大学).³²

²⁶ http://chn.chinamil.com.cn/11/2012-01/09/content_4763254.htm.

²⁷ www.chinamil.com.cn/jfjbmap/content/2012-05/08/content_4701.htm.

²⁸ www.chinayz.net.cn/2012/glkj/.

²⁹ http://chn.chinamil.com.cn/11/2012-01/09/content_4763254.htm.

³⁰ *Air Force News*, 25 May 2012.

³¹ *PLA Military Terminology*, 1997, p. 19 and 2011, p. 67.

³² http://news.ifeng.com/mil/2/detail_2012_02/29/12864372_0.shtml.

Chapter Two: The Central Military Commission

Alice Miller

The Central Military Commission (CMC/中央军事委员会/中央军委) is the apex of the military hierarchy in China's political order. Under the 1982 constitution of the Chinese Communist Party (CCP), a party CMC is appointed by the party Central Committee at the same plenum that appoints the party Politburo and its Standing Committee, the Secretariat, and the Central Discipline Inspection Commission leadership.¹ Under the 1982 People's Republic of China (PRC) constitution, a state CMC is appointed by the National People's Congress (NPC) and is institutionally co-equal with the PRC's executive branch, the State Council. In China's military hierarchy, the CMC is the top grade body that outranks every other military institution.

Most studies of the CMC focus on its mission, organization and internal processes, and relationship with other institutions in China's military sector.² As critically important as this focus is, it nevertheless suffers from what Mao Zedong in 1929 called a "purely military viewpoint" that neglects the broader political context that a military serves.³ The CMC's role, organization, and processes are better understood from two perspectives: first, from the perspective of the broader hierarchies of civilian political institutions within which it fits; and second, from the perspective of the military sector itself. This paper offers assessments from both perspectives since 2000.

The CMC in the Broader Political Order

The authority and place of the CMC in China's political order today reflect the maturation of fundamental changes in the overall institutional structure and processes of politics made in the early 1980s under the leadership of Deng Xiaoping. To a large degree, these changes marked a restoration of reforms in the PRC's political institutions introduced in the mid-1950s that were intended to enable the CCP to shift from a politics of revolution to a politics of governance and that soon thereafter fell afoul of the increasingly polarized leadership politics that eventually led to the Cultural Revolution. The changes Deng introduced in the early 1980s also took into account the experiences of the last two decades of Mao Zedong's disastrous leadership, seeking to inhibit a recurrence of the politicized military and of the militarized politics of that era. As a consequence, the CMC has been reshaped in accord with priorities that have driven the reform of all of China's civilian institutions.

¹ In common usage, the *Zhongyang junwei* (中央军委) refers to the Military Commission (军事委员会) of the Central Committee (中央委员会) of the Chinese Communist Party (CCP/中国共产党), but even the Chinese use the acronym CMC. This organization has been in existence since the early days of the Red Army and was identified in English as the Military Affairs Commission (MAC) until the late 1980s, when it was renamed the Central Military Commission and given the acronym CMC.

² Comprehensive studies of the CMC along this line include: Nan Li, "The Central Military Commission and Military Policy in China" and David Shambaugh, "The Pinnacle of the Pyramid: The Central Military Commission," in James Mulvenon and Andrew N.D. Yang, eds., *The People's Liberation Army as Organization*, Santa Monica, CA: RAND, 2002, pp.45-94 and 95-121 respectively; and Tai Ming Cheung, "The Riddle in the Middle: China Central Military Commission in the 21st Century," paper prepared for the CAPS-RAND-NDU-Carnegie conference on the PLA, Taipei: November 2011, pp.1-30.

³ Mao Zedong, "On Correcting Mistaken Ideas in the Party," December 1929, in *Selected Works of Mao Tse-tung*, Beijing: Foreign Languages Press, 1965, Vol. I, p.105ff.

Why Are There Two Central Military Commissions?

Since its creation under the revised state constitution of 1982, the PRC CMC has often struck Western observers as an exceptionally anomalous convolution in the frequently convoluted world of Chinese politics. In the day-to-day work of managing China's military, moreover, the institution of two CMCs, though identical in membership—thus “one organ, two signboards” (一个机构,两个牌子)—seems to make no practical difference. And since the CCP is the engine of all regime politics and policy, the party CMC is the abiding reality, and it is easy to see the state CMC as effectively a superfluous myth. The establishment of coextensive party and state CMCs in 1982, however, reflects a compromise resolution to a longstanding dilemma of civilian authority over China's military. The inherent ambiguities in that resolution subsequently fed into the politics of the Tiananmen crisis in 1989 and continue to spark controversy down to today.

Initially, when the CCP-led coalition PRC government was established in 1949, the PRC Organic Law established a new People's Revolutionary Military Council as “the supreme military command of the state.”⁴ In turn, the CCP abolished its CMC.⁵ In September 1954, when the PRC's first socialist constitution was adopted and full-scale socialist institutions were established at the First NPC, authority over the PLA was again placed under the state. Article 20 of the new constitution stated that “the armed forces of the PRC belong to the people,” and Article 42 stipulated that “the President of the PRC shall command the armed force.” Article 42 also stated that the PRC president “chairs the National Defense Council (NDC),” a new body whose functions were not laid out in the constitution. Finally, on 28 September 1954, the same day the NPC was closing, the Politburo adopted a “Decision” to “re-establish” (重新设立) the party's Military Commission (军事委员会) to “take charge of leadership over all military work” under the direction of the Politburo and Secretariat. It further appointed Mao Zedong as chairman and 11 members, and it put Peng Dehuai in charge of the Commission's day-to-day work. Shortly thereafter, Huang Kecheng was appointed Military Commission secretary.⁶

As one authoritative source on institutional history notes, the NDC, staffed with a large number of non-party people and former ROC military leaders, “was not a leading organ of the armed forces.”⁷ The seat of regime military policy-making was clearly the party's Military Commission, although until 1959 that body was very rarely mentioned in PRC media. The revised party constitution adopted at the Eighth CCP Congress in September 1956 did not mention it, nor did the communiqué of the Eighth Central Committee's First Plenum—which announced appointments to the new Politburo, the Politburo Standing Committee, and Secretariat—

⁴ 1949 Organic Law of the People's Republic of China, Article 4. Article 23 states further that “the PLA...shall come under the unified control and command of the People's Revolutionary Military Council.”

⁵ Some analysts argue that the party's Military Commission existed informally as the core group of CCP members of the People's Revolutionary Military Council.

⁶ Central Committee Organization Department, Central Committee Party History Research Office, and Central Archive, eds.(中共中央组织部, 中共中央党史研究室, 中央档案馆), *Materials on the Organizational History of the Chinese Communist Party* (中国共产党组织史资料), Beijing: 中共党史出版社, 2000, Vol.5, p. 55; Liu Guoxin (刘国新) et al., eds. *Veritable Record of the People's Republic of China*(中华人民共和国实录), Changchun: Jilin People's Press, 1994, Vol.1 Part 2 (1953-1956), p. 1087.

⁷ Ibid..

announce appointments to the Military Commission.⁸ Nevertheless, the primacy of the Commission for military policy was evident from its expanding membership. From 1954 to 1956, its membership consisted of Mao, all ten of the military leaders given the rank of marshal in 1955, and Deng Xiaoping, who had just been appointed party secretary-general (秘书长).⁹ In November 1956, the Military Commission membership expanded from 12 to 22, adding the directors of the newly restructured General Departments, as well as the commanders of the PLA Navy, Air Force, and Armor.

The civil-military significance of these institutional arrangements was to establish the principle that command of China's armed forces belonged to the state, even while major military decisions were to be made in the party. Mao Zedong served both as chairman of the party's Military Commission and, as PRC president, as commander of the armed forces. Peng Dehuai, the Military Commission's leading executive, served concurrently as vice premier and defense minister in the State Council. Mao also presided over the NDC, and Peng served, after Zhu De, as its second-ranking vice chairman.

This division of party and state authority over the military was disrupted in 1959, and it was abandoned altogether in the Cultural Revolution decade. At the Second NPC in April 1959, Mao ceded the post of PRC president to Liu Shaoqi, and with it constitutional authority to command China's armed forces, even though Liu was not a member of the Central Military Commission. Liu was re-appointed president at the Third NPC in January 1965. Later in 1959, in August at Lushan, Mao purged Peng Dehuai and Huang Kecheng from the Military Commission, replacing Peng with Lin Biao as defense minister and as the man in charge of the CMC's day-to-day work.

When the leadership began in 1970 to debate convocation of a Fourth NPC and revisions of the PRC constitution, Mao, by all available accounts of a particularly murky episode in PRC political history, adamantly opposed restoration of the post of PRC president, purging Chen Boda and chastening Lin Biao for advocating it at the 1970 Ninth Central Committee's Second Plenum at Lushan. The successive party constitutions adopted at the Ninth Party Congress in 1969 and at 11th Party Congress in 1977 and the new PRC constitutions of 1975 and 1978 all implicitly or explicitly placed command of the PLA under the CCP. The 1977 CCP constitution, for example, stated that "State organs, the PLA and the militia, and revolutionary mass organizations...must accept the absolute leadership of the CCP" (Art. 14). The 1978 PRC constitution stipulated that "the chairman of the CCP Central Committee commands the armed forces" and that "the Chinese PLA is the workers' and peasants' own armed force led by the CCP; it is the pillar of the dictatorship of the proletariat." (Art. 19)

The watershed victory of Deng Xiaoping and his coalition of veteran leaders in overturning Mao's and Hua Guofeng's ideological platform of advancing "class struggle" in favor of focusing the CCP on the "general task" of China's economic modernization brought not only the first waves of economic reforms that set the PRC on its current path to power and prosperity but

⁸ "The Eighth Central Committee Elects New Central Organs," *People's Daily* (人民日报), 29 September 1956, p.1.

⁹ This was a different position than party general secretary (总书记), which had been the party's top post from the party's founding in July 1921 until its abolition in 1937. The post of general secretary was restored at the Eighth CCP Congress in 1956 and given to Deng as part of a major reform of the party's leadership structure, on which see below.

also on fundamental political reforms. Deng Xiaoping sketched the grand design for reform in both party and state institutions in a major speech to an enlarged Politburo meeting on 18-23 August 1980.¹⁰ With respect to the CCP's central institutions and processes, the Eleventh Central Committee's Fifth Plenum in February 1980 restored the party Secretariat and the position of general secretary and mandated revision of the CCP's constitution, preparing the way for the abolition of the post of party chairman and the restoration of the 1954-1956 structure of Politburo-Secretariat policy-making at the 12th CCP Congress in September 1982 (on this more below). With regard to state institutions, efforts also began in 1980, with the decision of the Fifth NPC's Third Session to revise the PRC constitution on the basis of the 1954 constitution. These steps immediately raised anew the question of whether to restore the post of head of state and with it the question of who should command the PLA.

In September 1980, the Politburo appointed a drafting committee to begin work on a revised PRC constitution.¹¹ After extensive consultations, the committee produced an initial discussion draft at the end of 1981 that reflected the broadly held judgment that the post of PRC president be restored as head of state to represent the People's Republic abroad and to command the PLA, as the 1954 constitution had provided. The draft therefore stipulated that the president would command the armed forces and serve concurrently as chairman of a restored NDC; that the president would formally appoint the NDC's vice chairman and its members, as well as the directors of the PLA's General Departments; and that the State Council would attend to the maintenance of the PLA. The only major departure from the 1954 constitution's provisions was the restriction that the president "will not interfere in government work nor assume any administrative responsibilities."

The initial draft was circulated for comment and provoked several basic questions. According to Chen and Liu, some commentators objected that it would be impossible for the president to lead the armed forces if he had no role in government. Others wondered whether party and army would be able to act in a concerted way in the event of a war if the president could not engage the government and the party chairman did not lead the armed forces. Others noted that the position of president was very high and assumed responsibilities for leading all three of the PLA's services (e.g., Army, Navy, and Air Force) and worried that he might not be adequately supervised and prevented from using the armed forces to advance his personal ambitions. Others argued that the NDC under the 1954 system was empty, and so why restore it?

On the basis of these and other considerations, the drafting committee concluded that the 1954 system no longer suited contemporary realities, especially in light of the lessons of the Cultural

¹⁰ The landmark document elaborating the purposes of this political reform agenda is Deng Xiaoping's speech to an enlarged Politburo meeting on 18 August 1980, entitled "On the Reform of the System of Party and State Leadership" and included in *Selected Works of Deng Xiaoping (1978-1982)*, Beijing: Foreign Languages Press, 1984, pp. 302-325. All analysts seeking to understand post-Mao politics should read, study, mark, learn, and inwardly digest this speech as part of their daily catechism. On the broader context of Deng's speech, see Wu Guoyou, *A History of the People's Republic of China* (中华人民共和国史), Zheng Qian, general editor, Beijing: People's Press, 2010, Vol.4: 1977-1991, pp. 212-215.

¹¹ The following account derives from Chen Sixi & Liu Songshan, "The Process of Establishing the PRC CMC," (宪法确立国家中央军事委员会的经过), *Legal Studies* (法学), 2001 no.2, pp. 3-6. The authors served on the NPC's Legislative Affairs Committee.

Revolution. By this time, the drafting committee had already received letters suggesting that the party CMC be transferred to the state. Others suggested that if the NDC were to be re-established, it should be unified with the party CMC, so that under the party there would be a CMC and under the state an NDC. At a Chinese People's Political Consultative Conference forum on 12 March 1982, the former Nationalist Party (KMT) leader Cheng Siyuan proposed moving the CMC from the party to the state and making the president chairman of the CMC.

Thereafter, in the spring of 1982, the Politburo dropped the idea that the head of state command the PLA and that a revamped NDC be restored. Instead, it decided that a PRC CMC should be established to lead the armed forces; that the CMC's chairman would report to the NPC; that the NPC would have the power to appoint and remove the chairman; and that the State Council would provide for the armed forces' needs. In early April 1981, these decisions were incorporated into the draft constitution and approved for broad discussion. On 22 April, at a session of the NPC Standing Committee, Chairman Peng Zhen laid out the rationales for the particulars of the revised draft, and on the 27th the NPC Standing Committee approved it for nationwide debate. The Xinhua News Agency publicized both the text of the draft constitution and of Peng's speech on 28 April.¹²

The draft constitution produced questions from several quarters. Why the change from the president commanding the armed forces to the state CMC commanding them? If the state CMC commands the armed forces, what would the party CMC do? What would be the relationship between the party and state CMCs? According to Chen and Liu, "doubts and mistaken views" about the draft constitution were particularly notable among the PLA. The Politburo responded with a "Central Committee Notice on the Establishment of a CMC in the Revised Constitution Draft."¹³ Drafted under the personal direction of Peng Zhen, the notice explained that under the new structure, the party CMC would continue to lead the PLA because the party and state CMCs would be "one body, two signboards". In addition, the party CMC would direct political work in the PLA through the political commissar system. The new constitutional stipulations, therefore, would not revoke party leadership over the army, nor did they "mean that the place of the army was being demoted."¹⁴

Over the next several months, Peng Zhen's drafting committee incorporated other provisions. Because of the sensitive nature of military affairs, the constitution would not specify the limits on tenure of the state CMC chairman, even though it did stipulate that the NPC chairman and State Council premier could serve no more than two five-year terms. In addition, the CMC chairman would not make formal reports to the NPC because of concerns about preserving the necessary secrecy of military affairs. On 14 October 1982, Peng Zhen conveyed these and other decisions in a letter to party General Secretary Hu Yaobang and Politburo Standing Committee member and CMC chairman Deng Xiaoping and, after Politburo discussion, they were incorporated into the final draft presented to the Fifth NPC's Fifth Session on 26 November 1982,

¹² The text of Peng's speech is in CCP Central Committee Documents Research Office, ed., *Selected Important Documents since the Third Plenum* (三中全会以来重要文献选编), Beijing: Zhongyang Wenxian Press, 2011, Vol. II, p. 541ff. For translations of both, see Foreign Broadcast Information Service *Daily Report: China*, 29 April 1982, pp. K1ff and 30 April 1982, pp. K1ff.

¹³ This notice has never been publicized.

¹⁴ Chen and Liu, pp. 5-6.

which promulgated the new constitution. In presenting the final draft of the constitution to the NPC, Peng Zhen summed up the logic of the new structure:

The People's Liberation Army, created and led by the Chinese Communist Party, has been the national army since the founding of the People's Republic of China. On the basis of summing up experience since the founding of the People's Republic and in accordance with the actual conditions and needs of our country, the draft properly defines the position of the armed forces in the state system. The leadership of the Chinese Communist Party over the armed forces will not change with the establishment of the state Central Military Commission. The party's leading role over the life of the state, which is explicitly affirmed in the preamble, naturally includes its leadership over the armed forces.¹⁵

These decisions created the coextensive party and state Central Military Commissions and their relationship to the civilian political order that prevails today. Under the 1982 PRC Constitution, "the Central Military Commission of the PRC commands the armed forces of the country" and "the chairman of the CMC is responsible to the National People's Congress and its standing committee" (Articles 93 and 94). The 1997 National Defense Law codified the powers of the PRC CMC in Articles 13 and 27, as follows:

- To command the armed forces of the country in a unified way
- To decide on the military strategies and the principles of operation for the armed forces
- To direct and administer the building of the Chinese People's Liberation Army, work out programs and plans, and organize personnel to carry them out
- To submit bills to the National People's Congress or its Standing Committee
- To formulate military laws and regulations and issue decisions and orders in accordance with the constitution and laws
- To decide on the structure and size of the Chinese People's Liberation Army and set the tasks, functions, and powers for general departments, military regions, arms, services, and other units equivalent to a military region
- To appoint, remove, train, evaluate, reward, or punish members of the armed forces in accordance with laws and military laws and regulations
- To approve the armed forces' weapons and equipment systems and their programs and plans for the development of weapons and equipment and to administer scientific research and production for national defense in coordination with the State Council
- To administer spending and assets for national defense in coordination with the State Council
- To exercise other functions and powers as prescribed in laws
- To direct in a unified way work concerning frontier, coastal and air defense

¹⁵ Peng Zhen, "Report on the Revised Draft of the PRC Constitution" (关于中华人民共和国宪法修改草案的报告), 26 November 1982, in CCP Central Committee Documents Research Office, ed., *Selected Important Documents since the Twelfth Congress* (十二大以来重要文献选编), Beijing: Zhongyang Wenxian Press, 2011, Vol. I, p. 130. For a translation, see Foreign Broadcast Information Service *Daily Report: China*, 7 December 1982, p. K33ff.

According to the PRC constitution, the PRC president plays no role in military affairs except to proclaim a state of war and a state of martial law, but the decisions to do so rest with the NPC and its Standing Committee.

Under the 1982 CCP Constitution, the role of the CCP CMC is to direct the party apparatus in the PLA and its political affairs:

Party organizations in the Chinese PLA carry on their work in accordance with the instructions of the Central Committee. The political work organ of the Central Military Commission of the Central Committee is the General Political Department of the PLA; the General Political Department directs party and political work in the army. The organizational system and organs of the party in the armed forces are prescribed by the Military Commission of the Central Committee.” (Art.23)

This division of labor between two CMCs satisfies the goal of legalizing command of China’s armed forces under the state, a principle that the regime leadership sought to establish in the 1950s, that was discarded in the polarized leadership politics of the 1960s and 1970s, and that was restored as a cardinal priority by Deng Xiaoping and his collaborators.

Any potential conflict arising out of this division of labor is circumvented by the practice that most of the time the membership of the two CMCs is identical.

Although this system has remained unchanged for 30 years, ambiguities inherent in it have provoked persistent controversy and suggestions about how to address them. These appear in particular in articles on the legal foundations of PLA supervision in China’s law journals. In recent years, for example, one article in 2009 called for constitutional clarifications on supervision of the CMC by the NPC, and another suggested a constitutional amendment whereby the CMC would regularly report to the NPC.¹⁶ Another article in 2011 addressed several ambiguities in civil-military relationships under the state constitution, such as Premier Wen Jiabao’s directing PLA troops in the context of the 2008 Wenchuan earthquake relief, the relationship between the CMC and the NPC and State Council, the term of office of the CMC chairman, and other issues.¹⁷ The persistence of these debates may be one of the factors that has provoked the longevity of the CCP’s campaign, which began in the summer of 1989 in the wake of the Tiananmen crisis but which continues down to today, that stresses the need for the PLA to remain “absolutely loyal” to party’s leadership and that stridently rebuts calls for the “nationalization” (国家化) of the PLA and the excision of the party (非党化) from the armed forces.

¹⁶ Lin Zishen, “试论完善最高立法机关对于中央军委的监督机制” (A Tentative Discussion of Perfecting the Supreme Legislative Organs’ Supervisory Mechanisms Regarding the CMC,” *Rule of Law and Society* (法制与社会), 2009 no. 6, pp. 255-256; and Qin Qianhong and Huan Ji’e, “A Study of the Evolution of Tenure Institutions of China’s National Military Leaders,” *Ningbo University Journal*(宁波大学学报), Vol. 22 no. 4 (July 2009), pp. 105-110. Lin Zichen is MA student in military legislation at the People’s Armed Police Academy; Qin and Huan are at Wuhan University Law School.

¹⁷ Ma Ling, “我国现行宪法中的军事权规范” (The Norms of Military Power in Our Constitution), *Rule of Law Forum* 法制论丛, Vol. 26 no. 2 (March 2011), pp. 1-15.

The CMC and the Party Politburo

Under the 1982 party constitution, the CMC is directly subordinate to the party Politburo and its Standing Committee. Although the CMC, like the Politburo, is appointed directly by the Central Committee and so is an organ of the Central Committee, the party constitution stipulates that the Politburo and its Standing Committee “exercise the functions and powers” of the Central Committee when it is not in session. The constitution makes no prescription, however, for how the Politburo guides the CMC.

How the CMC’s relationship with the Politburo has developed over the past 30 years has been strongly shaped by the processes of institutionalization that have in tandem shaped the CCP’s leadership policy-making bodies over that period. Paralleling his efforts to reshape the CMC, Deng Xiaoping began in 1980 to recast the leadership decision-making system in the Politburo and Secretariat based on reforms that were introduced at the 1956 Eighth CCP Congress and that, like CMC reforms of the period, fell apart in the polarized leadership competition that led into the Cultural Revolution.

Deng’s purposes in reforming the party leadership system were twofold. First, he sought to institutionalize a collective leadership process that could make balanced and effective policy decisions in guiding a country undergoing rapid modernization and possessing growing wealth and power. Second, he sought to inhibit any individual leader from exerting dictatorial power over the rest of the leadership and leading China into national disaster as Mao had done in the Cultural Revolution decade. Institutionalizing an effective and stable relationship between the party leadership and the military was essential to both purposes. As a major instrument of Chinese foreign relations and national security and as a major interest group in state budgetary allocations, the PLA required effective representation in top-level policy-making. At the same time, for the second purpose it was critical to erect adequate barriers against the use of the military as a base of political power in leadership politics as Mao had done.

Deng’s initial reform of the party leadership was to restore the 1956 leadership system.¹⁸ Under that arrangement, two party bodies dominated the process of making policy decisions and supervising their implementation: a restored Politburo Standing Committee, which was staffed to make decisions on all major policy matters, and the Secretariat, which supervised coordination and implementation of Standing Committee decisions. Under this system, the Politburo largely ratified decisions made by its Standing Committee and rarely met. As established in 1956, Mao, as both party and CMC chairman, presided over a six-man Standing Committee that included the leaders of the major institutional hierarchies, and Deng Xiaoping as general secretary—also a post restored since its abolition in 1937--presided over the Secretariat and concurrently sat on the Standing Committee as its lowest ranking member. The Secretariat constituted the “first line” of the leadership and managed the day-to-day affairs of the party, and the Politburo Standing Committee constituted the “second line.” As Mao remarked in 1958, “I am the commander, and Deng is the lieutenant.” As recreated at the Twelfth CCP Congress in 1982, General Secretary

¹⁸ I have sketched these leadership reforms in greater detail in “Institutionalization and the Changing Dynamics of Chinese Leadership Politics,” in Cheng Li, ed., *China’s Changing Political Landscape: Prospects for Democracy*, Washington, DC: Brookings Institution Press, 2008, pp. 61-79.

Hu Yaobang presided over a five-man Politburo Standing Committee that included Deng himself as CMC chairman and concurrently presided over the Secretariat.

This modified 1956 party leadership system was altered further after Hu Yaobang was removed as general secretary in January 1987 for, among other things, using the Secretariat to infringe on the powers of the Politburo Standing Committee. Under a structure set down at the 13th CCP Congress and the Thirteenth Central Committee's First Plenum in the fall of 1987, the Politburo Standing Committee remained the core of leadership decision-making, but new steps to balance overall membership in the Politburo were introduced. These included the introduction of regional leaders as an institutional constituency to balance against the cluster of members serving in the party apparatus and those serving in state organs, as well as a sharp reduction of the number of members representing the PLA. In addition, the Politburo itself adopted new procedures to constrain the prerogatives of the general secretary. Finally, the Secretariat was severely reduced from 11 members to four and its role in coordinating policy decisions through the use of leading small groups was gradually moved to the Politburo Standing Committee. This new 1987 leadership system evolved with some tinkering during Jiang Zemin's tenure as general secretary from 1989 to 2002 and has appeared to stabilize under the leadership of Hu Jintao since 2002. That this leadership system has continued under the succession of General Secretary Xi Jinping at the Eighteenth CCP Congress in November 2012 indicates that this structure has hardened into a permanent system.

As the leadership system has matured under Jiang Zemin since the 1997 Fifteenth Party Congress and under Hu Jintao since 2002, the CMC and Politburo have been linked in two ways. First, the party general secretary serves concurrently as the chairman and for most of the time as the sole civilian member of the CMC. Second, the CMC—and so the PLA—is represented on the Politburo Standing Committee by the CMC chairman and on the broader Politburo by the CMC vice chairmen serving as regular members.¹⁹

On the Politburo Standing Committee, Hu's representation of the CMC fits into that body's broader structure of institutional representation and division of policy labor.²⁰ According to a system that began during Jiang Zemin's tenure and that has matured under Hu Jintao, each Standing Committee member represents a major institutional and policy sector and supervises the institutions associated with it. In Hu Jintao's two terms as party leader, these responsibilities break down as shown in Tables 1 and 2:

¹⁹ The sole exception was CMC Vice Chairman Liu Huaqing's service on the Politburo Standing Committee from 1992-1996.

²⁰ This system of responsibilities of members of the Politburo Standing Committee and the PLA's place in it is described more fully in Alice Miller, "The PLA in the Party Leadership Decision-Making System," paper presented to the CAPS-RAND-NDU-Carnegie Conference on the PLA, Taipei, November 2012.

Table 1: The 16th CC Politburo Standing Committee's Division of Policy Work (2002-2007)

Member	Other Posts	Policy Sector	Leading Small Group
Hu Jintao	CCP general secretary, PRC president, CMC chairman	Foreign relations, military affairs	Foreign Affairs LSG; Taiwan Affairs, LSG
Wu Bangguo	Chairman, National People's Congress	Legislative affairs	
Wen Jiabao	Premier, State Council	Government administration	Director, Finance & Economy LSG
Jia Qinglin	Chairman, Chinese People's Political Consultative Conference	United front affairs	
Zeng Qinghong	Executive secretary, CC Secretariat; president, Central Party School; PRC vice president	Party apparatus; Hong Kong & Macao affairs	Party-building LSG; Hong Kong & Macao Affairs LSG
Huang Ju	Executive vice premier, State Council	Finance and economy	Deputy director, Finance & Economy LSG
Wu Guanzheng	Chairman, Central Discipline Inspection Commission	Party discipline	
Li Changchun		Ideology and propaganda affairs	Ideology & Propaganda LSG
Luo Gan		Internal security	Politics & Law Committee

Table 2: The 17th CC Politburo Standing Committee's Division of Policy Work (2007-2012)

Member	Other Posts	Policy Sector	Leading Small Group
Hu Jintao	CCP general secretary, PRC president, CMC chairman	Foreign relations, military affairs	Foreign Affairs LSG; Taiwan Affairs, LSG
Wu Bangguo	Chairman, National People's Congress	Legislative affairs	
Wen Jiabao	Premier, State Council	Government administration	Director, Finance & Economy LSG
Jia Qinglin	Chairman, Chinese People's Political Consultative Conference	United front affairs	
Li Changchun		Ideology & propaganda affairs	
Xi Jinping	Executive secretary, CC Secretariat; president, Central Party School; PRC vice president	Party apparatus; Hong & Macao affairs	Party-building LSG; Hong Kong & Macao Affairs LSG
Li Keqiang	Executive vice premier, State Council	Finance & economy	Deputy director, Finance & Economy LSG
He Guoqiang	Chairman, Central Discipline Inspection Commission	Party discipline	
Zhou Yongkang		Internal security	Politics & Law Committee

From this perspective, Hu’s representation of the CMC on the 17th Central Committee Politburo Standing Committee parallels He Guoqiang’s representation of the Central Discipline Inspection Commission, Wu Bangguo’s representation of the NPC and Wen Jiabao’s of the State Council, and Jia Qinglin’s representation of the Chinese People’s Political Consultation Conference. The representation of these major institutional hierarchies by these leaders, together with the representation of the Central Committee’s leading small groups for foreign affairs, Taiwan and Hong Kong affairs, finance and economy, ideology and propaganda, party-building, and internal security brings together the principals of all major institutional and policy sectors, enabling the Standing Committee to address any major issue before the leadership in a balanced way. This system of institutional and policy representation and supervision makes the Standing Committee the core decision-making body in China’s political order.

The CMC has also been represented on the Politburo by the seating of two of its vice chairman as regular members on that body. Since 1987, the number of PLA leaders serving concurrently on the Politburo has been sharply reduced and limited to no more than two. This limitation appears to fit in with a broader effort to balance institutional representation—as shown in Table 3—as a way to inhibit the ability of any institutional bloc to dominate the Politburo. And the rather sharp limitation on PLA representation in this scheme appears to reflect a concern to constrain the potential for the general secretary to use a PLA bloc in the Politburo to assert his power over the rest of the leadership, as Mao Zedong had done.

Table 3: Representation of Institutional Constituencies on the 17th Central Committee Politburo (2007)

Party Apparatus	State Organs	Regional	Military/Security
Li Changchun	Li Keqiang	Wang Lequan	Zhou Yongkang
Xi Jinping	Wang Zhaoguo	Liu Qi	X
He Guoqiang	Wang Qishan	Wang Yang	Xu Caihou
Wang Gang	Hui Liangyu	Zhang Gaoli	Guo Boxiong
Liu Yunshan	Liu Yandong	Yu Zhengsheng	
Li Yuanchao	Zhang Dejiang	Bo Xilai	

The leadership under Xi Jinping appointed at the Eighteenth Central Committee’s First Plenum on 15 November 2012 preserved these arrangements with only minor tinkering. As shown in Table 4, the Politburo Standing Committee was reduced from nine to seven members, returning it to the size it was under Jiang Zemin in the 1990s and dropping two of the policy portfolios—internal security and propaganda—that had been represented on the Standing Committee under Hu. In passing his post as party chief on to Xi, Hu did not stay on another two years as CMC chairman, departing from the precedent set by Jiang Zemin in transferring his post as general secretary to Hu in 2002. The PLA continues to be represented on the Standing Committee by General Secretary Xi, who serves concurrently as CMC chairman. Finally, as before, only the two CMC vice chairmen hold seats concurrently on the Politburo.

Table 4: The 18th CC Politburo Standing Committee’s Division of Policy Work (2012-present)

Member	Other Posts*	Policy Sector	Leading Small Group
Xi Jinping	CCP general secretary, PRC president (?), CMC chairman	Foreign relations, military affairs	Foreign Affairs LSG; Taiwan Affairs, LSG
Li Keqiang	Premier, State Council (????))	Government administration	Director, Finance & Economy LSG
Zhang Dejiang	Chairman, National People’s Congress (?)		
Yu Zhengsheng	Chairman, Chinese People’s Political Consultative Conference (?)	United front affairs	
Liu Yunshan	Executive secretary, CC Secretariat; president, Central Party School (?); PRC vice president (?)	Party apparatus; Hong & Macao affairs (?)	Party-building LSG; Hong Kong & Macao Affairs LSG
Zhang Gaoli	Executive vice premier, State Council (?)	Finance & economy	Deputy director, Finance & Economy LSG
Wang Qishan	Chairman, Central Discipline Inspection Commission	Party discipline	

*Positions marked with (?) are expected, pending the 12th National People’s Congress in March 2013 or appointments subsequent to the 18th CCP Congress.

The CMC and the State Council

Under Article 12 of the 1997 National Defense Law, the State Council is charged with several functions that the Chinese call “defense construction.” These are:

- To draw up programs and plans for the development of national defense construction
- To formulate principles, policies, and administrative laws for national defense construction
- To direct and administer scientific research and production for national defense
- To administer expenditures and assets for national defense
- To direct and administer the work concerning national-economic mobilization, the mobilization of people’s armed forces, people’s air defense, national-defense communications, and other related matters
- To direct and administer work in support of the army and give preferential treatment to families of servicemen and martyrs and work concerning the placement of soldiers discharged from active duty
- To direct work concerning education in national defense
- To direct work concerning the building of the Chinese People’s Armed Police Force and the people’s militia, conscription, and reserve service and to administer work concerning frontier, coastal, and air defense in coordination with the Central Military Commission
- To exercise other functions and powers related to the building of national defense as prescribed by law

A few of these functions explicitly require coordination with the CMC, and most of the rest do implicitly in areas in which the functions of the two bodies overlap. To facilitate such coordination, Article 14 of the National Defense Law authorizes the CMC and State Council to “convene coordination meetings according to circumstances to solve problems concerning national defense.” Such meetings are not normally publicized in PRC media, and so their frequency and procedures and the specifics of the issues they address are not known.

Among institutions that the CMC and State Council administer jointly is the State National Defense Mobilization Commission. This body proceeds under Article 47 of the National Defense Law, which charges the CMC and State Council to “jointly direct work” of national mobilization. In the Commission’s current configuration, Premier Wen Jiabao presides as chairman over a membership that includes CMC member and Defense Minister General Liang Guanglie.

Another body that the CMC and State Council jointly direct is the State Special Committee (国家专门委员会). Originally created in 1962 as the Central Special Committee (中央国家专门委员会) to coordinate China’s nuclear and missile programs with the CMC, this body was chaired by Premier Zhou Enlai and reported to the Politburo. References to it are exceedingly rare in Chinese publications, but it appears to have been moved under joint CMC-State Council supervision in the 1980s and renamed accordingly. Very limited information suggests that its role is to coordinate the *Shenzhou* space project and other sensitive programs.²¹

The CMC in the Military Sector

Membership

Organizationally, the CMC chairman and vice chairmen constitute the top grade followed by the CMC members in the second grade in the 15-grade hierarchy that informs China’s military sector.²² As such, all military organizations are ultimately subordinate to its authority. All members of the CMC apart from the chairman, who is a civilian and, if appointed, the civilian successor-designate vice chairman, enjoy the rank of general.

Over the past decade, the membership of the CMC has been shaped by trends that broadly parallel those in the evolution of China’s civilian leadership bodies. These trends trace their roots back into the periods of Deng Xiaoping’s and Jiang Zemin’s leadership and matured under Hu Jintao’s leadership to produce a more routinized and predictable organizational life. These include trends toward functional representation over personalistic priorities in Mao’s heyday, retirement norms and institutionalized retirement norms and membership turnover, and succession processes to the post of chairman.

The most notable representational change in CMC membership came at the 16th Central Committee’s Fourth Plenum in September 2004, when it was expanded to include the commanders of the PLA Navy, Air Force, and Second Artillery. Commanders of the PLA’s specialized ground force service arms had become part of the CMC’s membership in 1956, in

²¹ Tai Ming Cheung, *Fortifying China—The Struggle to Build a Modern Defense Economy*, Ithaca: Cornell University Press, 2009, pp. 29-30 and 254.

²² For a detailed analysis of this grade structure and its implications, see the “Introduction” in this volume by Kenneth Allen.

keeping with the prevailing expectations of collaboration with Soviet Red Army forces under the Sino-Soviet Treaty, and they remained members through the politicized expansion of the CMC at the 9th through 11th Party Congresses. As Table 4 shows, CMC membership was severely reduced as Deng Xiaoping recast the CMC in the 1980s, and these commanders were excluded. Since 1992, the regular members of the CMC have included only the directors of the General Departments and, in the early 1990s, the defense minister (Chi Haotian) after 1997, Wang Ruilin, who had been Deng Xiaoping’s left-hand man in the military for decades.

The inclusion of these commanders most likely reflected the increasing focus of the PLA on joint warfare, especially since the shift away from the “people’s war” defense doctrines of the 1960s and 1970s in favor of a preparations to fight “local limited wars,” announced in 1985, and its subsequent refinements “local limited war under high-technology conditions” (1992) and “local limited wars under conditions of informationization” (2004). PRC media commentary following the 2004 Sixteenth Central Committee’s Fourth Plenum explained the addition of these commanders in these terms. For example, the communist controlled Hong Kong-based China News Service (中国通讯社) report cited “Beijing military experts” as stating that the appointments “suit the trend toward joint warfare,” especially with respect to the task of deterring Taiwan independence.²³

Table 5: Membership of the CCP CMC, 1954-2007

Party Congress	1954	1956	1959	1969	1976	1977	1982	1987	1992	1997	2002
<i>Chairman</i>	Mao	Mao	Mao	Mao	Hua	Hua 1981: Deng	Deng	Deng 1989: Jiang	Jiang	Jiang	Jiang 2004: Hu
Vice Chairman	-	-	3	6	4	5	3	2	2 1995: 4	2 1999: 3	3
Members	12	12	21	49	29	63	-	-	4	4	4 2004: 7
Standing Committee	-	-	13	12	10	22	-	-	-	-	-
Standing Committee Vice Chairman	-	-	-	-	-	-	1	1	-	-	-
Secretary-General	1	1	1	-	-	1	1	1	-	-	-
Deputy Secretary General	1	1	4	-	-	-	-	-	-	-	-

²³ Lin Chuan, “Central Military Commission Line-Up is Younger, Its Structure More Rational,” China News Service, 20 September 2004, translation slightly modified from that in OSC document number CPP20040920000223. Please do not directly cite OSC material. Can you find the original?

PRC media reporting suggested a related reason for the inclusion of the three service commanders was its expected impact on CMC decision-making. As Deng rebuilt the CMC in the 1980s, ground force officers overwhelmingly dominated CMC staffing, a trend that continued into the early 2000s. The inclusion of the Navy, Air Force and Second Artillery commanders broke this dominance and, in an era when defense doctrines emphasized joint warfare, facilitated more balanced decision-making in a CMC that had up to that point had privileged ground force-based thinking. The same China News Service report cited above noted that heretofore these commanders could only attend enlarged CMC meetings, and it cited National Defense University professor and Major General Pan Zhenqiang as predicting that their inclusion would “play a major role in scientific decision-making” in the CMC.²⁴

Retirement norms for CMC members appear to have consolidated during Hu Jintao’s leadership of the CMC. Under the 1994 revision of the 1988 “Active Service Regulations,” the specific retirement age of 65 was set down for PLA officers up through military region leader grade. According to one account, regular members of the CMC were expected to retire at 70, though with the possibility under some circumstances at 72, and there was no age limit for CMC vice chairmen.²⁵ The age 70 CMC retirement norm seemed to coincide with the emergence of the same norm for retirement of Politburo members evident at the 15th Central Committee First Plenum’s Politburo appointments in 1997. At the 16th Party Congress in 2002 and again at the 17th in 2007, a lower retirement norm of 68 appeared to dictate retirement of Politburo members. PRC media in 2007 stated that this had become an established internal norm for the Politburo, supplementing longstanding party regulations establishing explicit norms for retirement of cadres in party organs below the Politburo. As Tables 5 and 6 suggest, an age 68 retirement norm appears to have come into force over the same period:

Table 6: Retirement of Military Leaders from the 1997-2002 CMC Membership

Member	Birth	Age in 2002	Retired in 2002?
Zhang Wannian	1928	74	yes
Chi Haotian	1927	75	yes
Fu Quanyou	1930	72	yes
Yu Yongbo	1931	71	yes
Wang Ke	1931	71	yes
Wang Ruilin	1930	72	yes
Cao Gangchuan	1935	67	no
Guo Boxiong	1942	60	no
Xu Caihou	1943	59	no

²⁴ Ibid.

²⁵ For a translation of the 1994 revision of the “Active Service Regulations Governing Active Duty Officers of the PLA,” see FBIS *Daily Report-China*, 17 May 1994, p. 35-40. See also the discussion in James Mulvenon, *Professionalization of the Senior Chinese Officer Corps: Trends and Implications*, Santa Monica: RAND, 1997, pp. 38-43.

Table 7: Retirement of Military Leaders from the 2002-2007 CMC Membership

Member	Birth	Age in 2007	Retired in 2007?
Guo Boxiong	1942	65	no
Cao Gangchuan	1935	72	yes
Xu Caihou	1943	64	no
Liang Guanglie	1940	67	no
Li Jinai	1942	65	no
Liao Xilong	1940	67	no
Chen Bingde	1941	66	no
Qiao Qingchen	1939	68	yes
Zhang Dingfa	1943	64	Deceased 2006
Jing Zhiyuan	1944	63	no

Based on an age 68 retirement norm, we may project who among the current CMC roster will retire at the 18th CCP Congress in 2012, as follows:

Table 8: Retirement of Military Leaders from the 2007-2012 CMC Membership

Member	Birth	Age in 2012	Retired in 2012?
Guo Boxiong	1942	70	yes
Xu Caihou	1943	69	yes
Liang Guanglie	1940	72	yes
Chen Bingde	1941	71	yes
Li Jinai	1942	70	yes
Liao Xilong	1940	72	yes
Chang Wanquan	1949	63	no
Jing Zhiyuan	1944	68	yes
Wu Shengli	1945	67	no
Xu Qiliang	1950	62	no

However much retirement norms for CMC members may have become more clear, criteria for promotion onto the CMC remain obscure. They are complicated by considerations of promotion according to grade and rank and are, as always, subject to the personalistic and political preferences of the CMC chairman and the party Politburo. If the retirement projections in Table 7 are correct, however, it seems possible that leaders whose careers have been in other than ground forces in the PLA may ascend to the post of CMC vice chairman for the first time since the retirement of Liu Huaqing in 1997.²⁶

²⁶ For a detailed examination on CMC promotion considerations generally, and of this question in particular, see Kenneth W. Allen, "Assessing the PLA's Promotion Ladder to CMC Member Based on Grades vs. Ranks—Part 1," *China Brief*, Vol. X Issue 15 (22 July 2010), pp. 6-8 and "Part 2," *ibid.*, Issue 16 (5 August 2010), pp. 5-9.

Succession to the post of CMC chairman may also have clarified. Jiang Zemin's delayed retirement in favor of Hu Jintao in September 2004, two years after he gave his post of party general secretary to Hu and a year after he ceded his post as PRC president to Hu, was widely interpreted as his attempt to hang onto power, contrary to expectations by many that he would retire from the CMC in 2002. An alternative explanation, however, is that Jiang's staggered retirement was planned from the start, based on precedents set by Deng Xiaoping in his own retirement from the party and CMC leadership.

Deng retired from the Politburo Standing Committee, his last party post, at the Thirteenth CCP Congress in 1987. Two years later, in November 1989, he retired from his post as chairman of the party CMC and from his post as state CMC chairman the following March. Nearly a decade later, Hu Jintao was promoted into positions to succeed Jiang according to the same staggered intervals. In 1997 at the Fifteenth Party Congress, he was reappointed to the Politburo Standing Committee to run the party apparatus. In March 1998, he was appointed PRC vice president, allowing him to travel on state business and receive foreign heads of state under official protocol. Finally, at the Fifteenth Central Committee's Fourth Plenum in 1999, he was appointed vice chairman of the CMC. These staggered promotions put him in position to succeed Jiang, which he did in the same staggered intervals—as party general secretary in 2002, as PRC president in 2003, and as CMC chairman in 2004. PRC media at the time hailed this transition as institutionalizing a precedent set by Deng Xiaoping and that presaged stability in future transitions.²⁷

Looking ahead, and judging by the pattern of Xi's appointments since 2007, the Hu leadership appeared to be arranging for the same staggered succession to the top party, state, and military posts of Xi Jinping in 2012, 2013, and 2014 respectively. But in the end, these precedents were not in fact followed, as Hu Jintao transferred both his post as party general secretary and as CMC chairman simultaneously to Xi Jinping. This transfer of both posts to Xi may have been decided at last minute and reflect significant haggling among the leadership, both party and military. In the longer term, the move consolidates the process of transition in the leadership and likely contributes to the institutionalization of leadership succession.

Structure and Administration

The internal structure, staffing, and processes of the CMC remain tightly held state secrets. PRC media rarely mention meetings of the CMC on a current basis, and mentions of CMC staff members are only occasionally seen. Portions of Jiang Zemin's speeches to enlarged CMC meetings devoted to major shifts in military affairs appear considerably after the fact in his *Selected Works*, published in 2006, and in the *Important Documents* series for his tenure as party leader.²⁸ Comparable publication of Hu Jintao's speeches on such occasions will likely have to

²⁷ See, for example, Yang Zhongxu, "From Deng to Jiang, A Transition from Old to Young Among High-Level Leaders: From Precedent to Institution" (从邓小平到江泽民, 高层领导新老交替:由先例到制度), *News Weekly* (新闻周刊), 27 September 2004, pp. 21-23.

²⁸ These are the CCP Central Committee Documents Office series *Selected Important Documents since the 13th Party Congress* (十三大以来重要文献选编), Beijing: People's Press, 1993, 3 volumes; *Selected Important Documents since the 14th Party Congress* (十四大以来重要文献选编), Beijing: Renmin Chubanshe, 1998, 3

wait some time after his retirement. It is no surprise therefore that relatively little new light has been shed on these aspects over the past decade.²⁹ And so these questions will be dealt with summarily.

As the military's top-grade organizational authority, the CMC exercises command through the four General Departments and through the headquarters of the Navy, Air Force and Second Artillery, the commanders of which all now sit on the CMC itself. In addition, the CMC has a direct line of command to China's seven military regions—though normally through the General Staff Department—and to the People's Armed Police headquarters.

The CMC also directly administers two major military education institutions: the National Defense University (NDU), which is the prime officer training academy for the PLA; and the National University of Defense Technology (NUDT). NDU was established in 1985 by merging the former GSD's Military Affairs Academy, the GPD's former Political Academy, and the GLD's former Logistics Academy to train senior officers at division level and above. The CMC also administers the Academy of Military Sciences (AMS), which is the PLA's foremost think tank. Founded in 1958 and modeled after the Soviet General Staff Academy, the AMS conducts research on all aspects of military affairs and doctrine, including foreign militaries, campaign tactics, military organization, strategy and theory of war, and military history. The AMS publishes the PRC's most prominent openly available journal on military affairs, *Chinese Military Science* (中国军事科学) and the important textbooks *The Science of Military Strategy* (战略学) and *The Science of Campaigns* (战役学).³⁰

The CMC administration includes several offices and bureaus, including a CMC Discipline Inspection Commission, currently headed by Admiral Tong Shiping. The core of the CMC's administrative staff is its General Office, which, as the general offices of the party Central Committee and of the State Council do, arranges the paper flow and communications, document drafting and archiving, logistics, office and meeting space, and other staff work for the CMC leadership. The sensitivity of these functions means that the director of the CMC General Office must enjoy a close working relationship with the CMC chairman but also the confidence of the rest of the CMC membership.

The CMC General Office has a Political Office and a Research Office, in addition to a Foreign Affairs Office, which it shares with the Ministry of Defense. The General Office also has at least five subordinate bureaus. These are:

- The Legal Affairs Bureau, currently directed by Major General Song Dan, which drafts military regulations and legislation and, with the GPD, presides over the PLA's judicial system

volumes; and *Selected Important Documents since the 15th Party Congress* (十五大以来重要文献选编), Beijing: People's Press, 2002, 3 volumes.

²⁹ Standard descriptions include the chapters by Nan Li and David Shambaugh cited above in footnote 1 and in Shambaugh, *Modernizing China's Military*, Berkeley: University of California Press, 2004, pp. 110-124. A recent assessment by a veteran CMC watcher is Tai Ming Cheung, "The Riddle in the Middle: China's Central Military Commission in the 21st Century," cited above and on which much of what follows is based.

³⁰ For further details, see David Shambaugh, *Modernizing China's Military*, pp. 175-182.

- The Auditing and Finance Department, which collaborates with the Ministry of Finance in drafting the defense budget and monitors its implementation
- The Communications and War Readiness Office, which is the CMC's command and control body and which, together with the GSD, transmits orders to the military region commands
- The PLA Secrecy Commission, which supervises maintenance of a classified military documents and manages the PLA's Central Archive
- The PLA's Central Discipline Inspection Commission³¹

The CMC General Office is assigned the grade of military region deputy leader, and as such, the director is normally a lieutenant general with long experience working with the PLA brass or with high-level party leaders, or both. During Jiang Zemin's tenure as chairman there were three directors—Li Jijun, Cheng Jianning, and Tan Yuexin; under Hu there have been two—Jia Tingan and Wang Guanzhong. Jia served as personal secretary to Jiang Zemin beginning in 1982 and during Jiang's subsequent years in Shanghai. When Jiang became party chief in June 1989, Jia moved to Beijing with him as chief of his personal staff. Finally, in 2003, Jiang appointed him director of the CMC General Office, a post he retained until 2007. His successor Wang Guanzhong for a time worked as personal secretary to Yang Shangkun, formerly executive vice chairman of the CMC, and began working his way up the CMC General Office hierarchy in 1996, when he was appointed a bureau chief. In 2002 he became a General Office deputy director.

The CMC's decision-making processes remain as obscure as ever, and lists of various kinds of CMC meetings—such as CMC standing conferences (军委常务会议), “head-knocking” meetings (军委碰头会议), and CMC plenary meetings (军委全体会议)—based on sources recounting practices in the 1980s may be superseded, given the transformation of the CMC in other respects in the time since.

The constant in the CMC processes has been the annual enlarged CMC meeting, which seems to have become a regular benchmark in the CMC's operation since the early 1990s. The meeting convenes in December each year to review overall PLA work over the outgoing year and set out priorities for the coming year, in much the same fashion that the Politburo convenes annual work conferences for economic and finance, propaganda, and internal security in the same period and the Central Discipline Inspection Commission convenes an annual plenum every January. These annual sessions may be supplemented by other enlarged CMC meetings as occasion requires through the year. Veteran CMC watcher Tai Ming Cheung has compiled what is known about CMC enlarged sessions—as presented and slightly amended as Table 9:

³¹ For further details, see David Shambaugh, *The Pinnacle of the Pyramid: The Central Military Commission*, pp. 104-106.

Table 9: Enlarged Sessions of the CMC, 2000-2009

Date	Type of Meeting	Participants	Key Issues Discussed
December 2000	Enlarged Annual Meeting	Jiang Zemin, Hu Jintao, all CMC members, commanders and political commissars of PLA general departments, service arms, military regions, & key academies.	Emphasis on development of Informatization in the PLA. Portion of Jiang’s speech in <i>Selected Works</i> , vol. III, p.157ff.
December 2002	Enlarged Annual Meeting	Jiang Zemin, Hu Jintao, all CMC members, commanders and political commissars of PLA general departments, service arms, military regions, & key academies	“Military transformation with Chinese characteristics.” Portion of Jiang’s speech in <i>Selected Works</i> , vol. III, p.576ff.
July 2003	Enlarged Meeting	Jiang Zemin, Hu Jintao, all CMC members, commanders and political commissars of PLA general departments, service arms, military regions, & key academies.	Focus on structural and organizational reform, including decision to cut PLA by 200,000 personnel announced in Sept. 2003
September 2004	Enlarged Meeting	Jiang Zemin, Hu Jintao, all CMC members, commanders and political commissars of PLA general departments, service arms, military regions, & key academies.	Succession of Hu Jintao to Jiang Zemin as CMC chairman.
December 2004	Enlarged Annual Meeting	Hu Jintao, all CMC members, commanders and political commissars of PLA general departments, service arms, military regions, & key academies.	Hu Jintao presides as CMC chairman for first time and unveils “Historic Missions of the Armed Forces in the New Period of the New Century.”
December 2005	Enlarged Annual Meeting	Hu Jintao, all CMC members, commanders and political commissars of PLA general departments, service arms, military regions, & key academies.	Hu Jintao unveils military version of his “scientific development concept.”
December 2006	Enlarged Annual Meeting	Hu Jintao, all CMC members, commanders and political commissars of PLA general departments, service arms, military regions, & key academies.	Unknown
December 2007	Enlarged Annual Meeting	Hu Jintao, all CMC members, commanders and political commissars of PLA general departments, service arms, military regions, & key academies.	Focus on Taiwan Strait and potential for instability arising from the upcoming Taiwan presidential election.
December 2008	Enlarged Annual Meeting	Hu Jintao, all CMC members, commanders and political commissars of PLA general departments, service arms, military regions, & key academies.	Worries raised about global and Chinese economic situation that could threaten domestic social stability.
December 2009	Enlarge Annual Meeting	Hu Jintao, all CMC members, commanders and political commissars of PLA general departments, service arms, military regions, & key academies.	Hu Jintao speech on accelerating the “transformation of combat power.”

Source: Tai Ming Cheung, “The Riddle in the Middle: China’s Central Military Commission in the 21st Century,” pp.15-16; slightly modified.

Conclusion

Developments in the CMC since 2000 broadly parallel similar patterns and trends in the evolution of Chinese political leadership institutions. In the case of the party Politburo and related leading institutions, trends toward enhanced institutionalization, balanced collective decision-making in a leadership oligarchy based on representation, orderly retirement and succession of leaders, and curbs against competition by individual leaders that may destabilize the leadership collective all appear intended to enable the CCP to govern a country that has grown in wealth and power and that has a great stake in political order and stability. In the case of the CMC, parallel trends seem intended to enable that body to guide a PLA whose capabilities are growing in range and power and that requires increasingly sophisticated and effective management. In both cases, Deng Xiaoping was the intelligent designer who initiated these trends, and his successors Jiang Zemin and Hu Jintao have each pressed them further. In the immediate wake of the Eighteenth CCP Congress, appointments made with sweeping turnover in the leadership of both the CCP's top institutions and in the military's appear to attest to the strength and continuity of these trends. As for how they play out over the longer term under the Xi Jinping leadership, once again, as Sunzi sagely observed, only time will tell.

Chapter Three: China's Defense Minister and Ministry of National Defense

Kenneth W. Allen, Christopher M. Clarke, John F. Corbett, Jr., and Lonnie D. Henley¹

This chapter provides an overview of the People's Republic of China's (PRC's) Defense Minister (国防部长) and Ministry of National Defense (MND/国防部). Despite decades of research, dozens of books, and hundreds of articles on the People's Liberation Army (PLA/人民解放军), our examination of the literature has turned up no adequate study of the Defense Minister's responsibilities or of MND's history, structure, functions, and actual operation, especially in the post-Mao era. For example, no official Chinese government or military publications or websites provide details about MND's organizational structure and responsibilities or clarity about the Defense Minister's responsibilities.²

It is our hope that this chapter will encourage future research to close the obvious information gaps on this important organization and the Defense Minister, who serves as a bridge between the military and government (e.g., the State). Based on the information available, this chapter attempts to address MND's staffing pattern and to address if its offices are essentially "ghosts" for counterpart elements of the Chinese Communist Party's (CCP's) Central Military Commission (CMC/中央军委), General Staff Department (GSD/总参谋部), and General Political Department (GPD/总政治部)—what the PLA calls "one organization with two plaques" (一个机构两块牌子). As such, the chapter addresses these issues in the following six sections and four appendices:

- Section 1: Introduction
- Section 2: Defense Minister and MND Grades
- Section 3: Defense Minister Responsibilities
- Section 4: MND Responsibilities and Organizational Structure
- Section 5: Possible Reforms
- Section 6: Information Gaps
- Appendix 1: Ministry of National Defense History
- Appendix 2: China's 11 Defense Ministers
- Appendix 3: Defense Minister Travel Abroad 2003-2012
- Appendix 4: Comparison of Activities by Defense Ministers Chi Haotian, Cao Gangchuan, and Liang Guanglie for One Year

¹ The statements of fact, opinion, or analysis are those of the authors and do not necessarily reflect the official policy or position of the Department of Defense, or the U.S. Government. Several people, including Frank Miller, Dan Tobin, Steve Angel, Shirley Kan, and Kevin Pollpeter, provided valuable input into this chapter.

² The official websites include www.gov.cn/, www.mod.gov.cn/, and www.chinamil.com.cn/. Although the official website uses the acronym MOD, China's biennial Defense White Paper uses the acronym MND for the Ministry of National Defense. The official publications include the *China Military Encyclopedia* (1997 and 2007 versions) and *World Military Yearbook* (first published in 1985). Although each publication has a lengthy entry for each of the four General Departments that includes their organizational structure, the entries for MND do not provide any substance.

Introduction

The first step in understanding the roles of China's Defense Minister and the Ministry of National Defense is to recognize that they do not equate in any respect to the United States' Secretary of Defense and Department of Defense in terms of making defense policy or commanding the military. In China, the Chinese Communist Party's (CCP's) Central Military Commission (CMC/中央军委), which has had a mirror image State CMC since 1982, and the four General Departments (四总部)—GSD, GPD, General Logistics Department (GLD/总后勤部), and General Armament Department (GAD/总装备部)—are responsible for making defense policy and commanding the military.³

The Defense Minister is the public face of MND, but his individual authority derives from being a CMC member and a State Councilor who represents military interests in the government through the State Council. The ministry, itself, is essentially an entity that exists in name only. The few organizations associated with MND are actually based within and are subordinate to the CMC and four General Departments. Depending on the purpose of the actual work, it is then attributed to either MND or the parent organization. As a result, one must make a clear distinction between the Defense Minister and the Ministry of National Defense in terms of their subordination and responsibilities.

MND is one of the most opaque and least understood agencies in a military and political system rife with lack of transparency. While it is possible to sketch out its organization, history, and publicly defined roles, very little is known about how it actually functions within the Chinese political and military systems or how it serves its mission as a liaison organization between the PLA and those organizations outside the PLA. Indeed, given the tripartite structure of power in China, divided among the parallel “stovepipes” of the CCP, the People's Republic of China (state/government), and the PLA (military functions), one might ask why a *government* ministry of national defense is even needed.⁴

One key to understanding the PRC's Defense Minister and MND is to realize that they serve the “*dui wai*” (对外) function for the PLA of dealing with the “outside,” i.e., handling relations with elements of the government and foreign realms outside the PLA itself. This allows the Party's PLA largely to remain insulated from outside forces, to preserve its position as a self-referential and semi-independent “*xitong*” (sub-system) within the PRC's power structure, and to provide a firewall for dealing directly, yet securely and on a need-to-know basis, with government agencies, foreign governments, and military-to-military relations. The Defense Minister and MND serve as the only link between the PLA and government within the stovepiped military

³ Of note, the Central Military Commission (中央军委) is actually the Military Commission (军事委员会) of the Central Committee (中央委员会) of the Chinese Communist Party (CCP/中国共产党), but even the Chinese use the acronym CMC and call it the Central Military Commission in English. Prior to the 1980s, it was known in English as the Military Affairs Commission and had the acronym MAC. As of 1982, the Party CMC also functions as the State CMC. See Alice Miller's CMC chapter for further details.

⁴ Although some liaison inevitably takes place between these three “stovepipes,” the three power systems of China overlap in command authority only at the very top—in the politburo standing committee of the party, where the chairman of the Central Military Commission, the president of the PRC, and the head of the party are embodied in a single individual.

community down to the lowest levels and the People's Armed Forces Departments (PAFDs/人民武装部) discussed later in the chapter.

This chapter provides information about the history, responsibilities, and grade of the individuals who have held the post of Defense Minister, as well as the history, responsibilities, bureaucratic “grade,” and organizational structure of MND. It poses a number of questions about—and points to significant information gaps in our understanding of—the actual functions of the Defense Minister and MND, as well as their statutory or customary duties, and of how they carry out their wide-ranging duties.

Wide-ranging Statutory Functions

According to the *2010 World Military Yearbook*, the 1954 Constitution of the People's Republic of China states that the State Council leads and manages national defense building. To accomplish its military mission, the State Council created the Ministry of National Defense to be responsible for all of the government's military affairs. Although the Ministry of National Defense is subordinate to the State Council, it is under the dual leadership of the State Council and the Chinese Communist Party's Central Military Commission. In practice, the CMC's General Office provides the day-to-day guidance while the four General Departments actually manage the work attributed to MND.⁵ The *1985 World Military Yearbook* clarifies this even more by stating that, even though the State Council established MND as a subordinate ministry, its work is managed directly under the CMC's leadership.⁶ In late 2012, the PLA National Defense University's College of Defense Studies created its own website that has a short section on the leadership and management structure for national defense. According to the website, “The State exercises unified leadership over national defense activities.”⁷ It only identifies the CMC and four General Departments and does not even mention MND or the Defense Minister.

This 2010 official description of MND highlights the unique and complicated situation of MND and the Defense Minister, which at the same time have an apparent “split personality” as entities within the PLA and State Council. Three points discussed below are crucial in understanding MND's role and functions today.

An Unfamiliar Breed

The Chinese MND is totally unlike the U.S. Department of Defense or the Ministry of National Defense in most other countries. In China, the Party's CMC, not MND, is the organization responsible for commanding and managing the military. China's MND has no command authority and does not set military policy. It is a government agency and a “ministry,” which is subordinate to the State Council. As such, it is under the *dual leadership* of the State Council and the CCP's CMC. Furthermore, MND is staffed by military officers who are dual-hatted with duties that include handling the MND mission as well as their parent General Department responsibilities.

⁵ *World Military Yearbook 2010*, (Beijing: PLA Press, January 2011), p. 142.

⁶ *World Military Yearbook 1985*, (Beijing: PLA Press, December 1986), p. 9.

⁷ “Leadership and Management Structure of National Defense” found at www.cdsndu.org/en/zgjs/jfjgk/jfjgk.htm. the quote cited is from the English version of the website.

This concept of “dual leadership” is alien to the political thinking of most analysts in the West and runs counter to the central tenet of “unity of command.” Yet, “dual leadership” is a fundamental element of the organization of power within China. Under this concept, many if not most agencies are under the “dual control” of both vertical (*tiao*) and horizontal (*kuai*) authority or subject to two bosses, sometimes for different functions. The People’s Armed Police, for example, is subordinated to the State Council (via the Ministry of Public Security) for administrative and policing functions, but also answers to the CMC for para-military and military functions.⁸

Changes over Time

MND has not been a static organization. During parts of the Mao Zedong period, it was very much involved in operational and command functions, sometimes presenting something of an alternative power center to the PLA’s General Departments and high command under Mao. One of the main reasons for this was that, during pre-1949 period, many of the Party leaders served as senior military leaders at the same time. During the late 1950s, for example MND was a powerful organization that oversaw key research and development areas for the defense industry and functioned as a powerful “mountaintop” for Defense Minister Peng Dehuai. During the 1960s, Marshal Lin Biao also used MND as a power base.⁹ As a result of Defense Minister Lin Biao’s death in 1971 following an attempted coup against Mao, MND lost virtually all of its power; however, it now has a broad portfolio that bridges the relationship between military and State entities across a wide spectrum of key national defense and civil-military issues. However, this portfolio is exercised by organizations subordinate to the General Departments while providing support to MND missions.

Another issue on which MND has changed over time, even during the reform era, is the concurrent rank/grade of the Defense Minister. The current minister is concurrently a State Councilor (国务委员) and a CMC Member (军委委员), but previous ministers have also served concurrently as a CMC Vice Chairman (军委副主席) and a member of the CCP’s Political Bureau (Politburo). State Councilors are the “protocol equivalent” of a vice premier, but rank a half-step lower in authority. Most have a narrower span of control than vice premiers (in the defense minister’s case, military affairs), and there is no evidence that they chair State Council

⁸ For information on the *tiao-kuai* system see “Getting the most from vertical management” in *China Daily* 21 December 2007, available at www.china.org.cn/english/GS-e/236456.htm. For other studies on the “*tiao-kuai*” or “*tiaotiao-kuai*” issue, see Paul E. Schroeder, “Ten Territorial Actors as Competitors for Power: The Case of Hubei and Wuhan” in Kenneth G. Lieberthal and David M. Lampton, eds., *Bureaucracy, Politics, and Decision Making in Post-Mao China*, Berkeley, CA: University Of California Press, 1992; Andrew C. Mertha, “China’s “Soft” Centralization: Shifting Tiao/Kuai Authority Relations” in *The China Quarterly*, 2005 pages 791-810 accessible at <http://falcon.arts.cornell.edu/am847/pdf/Soft%20Centralization%20Final.pdf>; and Yang Zhong, *Local Government and Politics in China: Challenges from Below*. Armonk, NY: ME Sharpe, 2003, especially Chapter 3, pages 47-93.

⁹ See, for example, *The Case of Peng De-huai, 1959-1968*. Hong Kong: Union Research Institute, 1968; Jurgen Domes, *Peng Te-huai: The Man and the Image*. Stanford, CA: Stanford University Press, 1985; Roderick MacFarquhar, *The Origins of the Cultural Revolution, Volume 2, The Great Leap Forward, 1958-1960*. New York: Columbia University Press, 1983; and Frederick C. Teiwes and Warren Sun, *China’s Road to Disaster: Mao, Central Politicians, and Provincial Leaders in the Unfolding of the Great Leap Forward 1955-1959*. Armonk, NY: M.E. Sharpe, 1998. On Lin see Michael Y.M. Kau, *The Lin Piao Affair*. White Plains, NY: International Arts and Sciences Press, 1975 and Frederick C. Teiwes and Warren Sun, *The Tragedy of Lin Biao*. Honolulu: University of Hawaii Press, 1996.

meetings in the absence of the premier. (The executive vice premier does exactly that.) Nonetheless, this makes the Defense Minister a member of the core “executive committee” of the State Council, which reportedly meets fairly regularly to discuss major policy issues. By contrast, plenary sessions of the State Council—involving all heads of ministerial-level agencies of the government—are far less frequent and seemingly meet *pro forma* to approve decisions already made and ratify government documents already decided upon. As a member of the core of the State Council, he is in a position to regularly and—if necessary, forcefully—represent the PLA’s point of view, and, in effect, the CMC’s perspective within the government’s top circles.

Different From The Rest Of The PLA

Not only is MND under the “dual leadership” of the State Council and the CMC, it is the only PLA headquarters-level organization that has neither deputies—there are no “deputy” or “vice” defense ministers—nor a political commissar, chief of staff, or any other high-ranking officials. Below the CMC Member Defense Minister (full general), the table of organization drops off precipitously to the military region deputy leader- to division leader-grade (major general and senior colonel) heads of second- and third-level departments subordinate to and within the four General Departments. In addition, unlike most PLA organizations, MND does not have a Political Department, which further reinforces the fact that MND does not have its own organizational structure for day-to-day activities like every other PLA organization.¹⁰ These organizations are discussed later in the chapter.

Defense Minister and MND Grades

The relationship between MND and other parts of the government is shaped not only by the portfolios each is responsible for, but also by the relative bureaucratic rank of the organizations and individuals involved. There are separate grade systems for the PLA and civilian officials, with different nomenclature and structures. The military system is fairly well understood among Western PLA specialists,¹¹ and the civil system among specialists in Chinese politics,¹² but there seems to have been little effort to compare the two. This section will attempt to bridge that divide. To preview the conclusion, there is a structural mismatch that puts the Minister and Ministry of National Defense senior to their civilian counterparts, complicating efforts to coordinate China’s external behavior.

In the PLA system, there are ten officer ranks (军衔) from General down to Second Lieutenant, mapped against 15 “duty position grades” (职务等级) from Military Commission Vice Chairman down to Platoon Leader.¹³ So an officer of Military Region (MR) Leader grade, for example, may be either a General or Lieutenant General, while a Lieutenant General may of MR

¹⁰ Political departments play a key role in promotions and assignments. The fact that MND has none is another indicator that it is something of a shell or shadow organization and that such important MND functions as personnel management and all functions associated with a typical Political Department, including discipline, take place within the PLA, not MND or the State Council.

¹¹ See for instance Dennis J. Blasko, *The Chinese Army Today: Tradition and Transformation for the 21st Century*, Second Edition (New York: Routledge, 2012), pp. 52-53.

¹² John P. Burns, “Civil Service Reform in China,” *OECD Journal on Budgeting* Vol. 7 No. 1 (2007), available at www.oecd.org/governance/budgetingandpublicexpenditures/44526166.pdf, accessed November 2012.

¹³ *People’s Liberation Army Regulation on Military Officer Ranks* (中国人民解放军军官军衔条例), passed 1988, amended 1994, promulgated as PRC Presidential Order Number 26 [1994], http://chn.chinamil.com.cn/jfdg/2011-07/13/content_4470092.htm, accessed October 2012.

Leader, MR Deputy Leader, or Corps/Army Leader (正军) grade. This contrasts to the U.S. system, where each military rank has only one corresponding grade and the two are synonymous for most purposes (e.g., an Army captain is an O-3). Organizations have grades as well, using the same 15-grade system, and each officer's duty position grade is dictated by his organization and role in it. Unlike the civil service system described below, PLA grades are not numbered.

The civil service, conversely, has only ten “duty position levels” (职务层次) from National Level Leader down to Township or Office Deputy Leader,¹⁴ mapped against 27 numbered grades (级别).^{15 16} Again there is overlap; for example, a National Level Deputy Leader may be grade 2-4, while a Province or Ministry Leader may be grade 4-8, so a grade 4 official might hold either duty position level. The civil service grade system applies to all organs of the Communist Party, People's Congress, executive branch (State), People's Consultative Congress, judiciary, procuratorate, democratic parties, and state-owned industries at every level, according to the 2006 Central Committee document promulgating the grade regulations.¹⁷ (This appears to settle the long-standing debate over whether there is a Party rank structure separate from civil service rank; there is not.) Unfortunately, there does not seem to be any authoritative public document that spells out the duty position level or numbered grade for specific jobs – for example, whether a State Council member, surely a National Level Deputy Leader, is grade 2, 3, or (presumably not) 4, or even whether all State Councilors are the same grade. There are non-authoritative but reasonable sounding lists on Chinese websites that relate jobs to duty position levels, but none pairing jobs to grades.¹⁸

In two such hierarchical systems – the military and the civil/Party structure – relationships across organizational boundaries inevitably are influenced by the relative ranks of the individuals and organizations. There seems to be no authoritative public document matching military to civil grades, but Table 1 provides a speculative assessment of how they may correspond.

With that background, we return to the Ministry of National Defense and its Minister, and their relationship to other parts of the State hierarchy, particularly the Ministry of Foreign Affairs (MFA). During the 17th Central Committee and 11th National People's Congress (NPC), the two Vice Chairmen of the CMC were also members of the Politburo, making them National Level Deputy Leaders on the Party/government side and civil grade 2. Defense Minister Liang

¹⁴ *PRC Civil Servants Law* (中华人民共和国公务员法), April 2005, http://news.xinhuanet.com/newscenter/2005-04/27/content_2886656.htm, accessed February 2011.

¹⁵ *Provisions on Management of Civil Servant Positions and Grades* (公务员职务与级别管理规定), issued as an appendix to Central Committee Document No. 9 [2006], www.hg12333.gov.cn/news/Show.asp?id=424, accessed February 2011.

¹⁶ The distinction among 等级, 层次, and 级别 seems to be as arbitrary as that among “grade,” “level,” and “rank” in English. We get a small break with 军衔, which unambiguously means “military rank.”

¹⁷ *Central Committee Document No. 9 [2006], Implementation of the PRC Law on Civil Servants*, 中共中央组织部, 人事部, 《中华人民共和国公务员法》实施方案, 中发[2006]9号, www.hg12333.gov.cn/news/Show.asp?id=424, accessed February 2011.

¹⁸ “Detailed explanation of the correspondence between civil service and military ranks in China!” (中国行政级别总汇, 公务员军人职务级别详解!) <http://gyx.fjsc.gov.cn/cms/html/gyx/2010-03-11/986634433.html>, accessed Oct 2012. Article on Baidu.com, “Demarcation of our country's Party and Government personnel grades” (我国党政级别与政府官员级别划分), 17 July 2007 <http://zhidao.baidu.com/question/30542168>, accessed February 2011.

Guanglie was a State Councilor, making him also a National Level Deputy Leader, probably grade 3, equal to the State Councilor in charge of foreign affairs, Dai Bingguo. Minister of Foreign Affairs Yang Jiechi, meanwhile, almost certainly was not higher than grade 4, since he was not a State Councilor, and may not even have been a National Level Deputy Leader, but rather a Province or Ministry Leader, in which case he could have been lower than grade 4. The imbalance in bureaucratic grade between the Minister of Defense and Minister of Foreign Affairs has been even worse at times, as when Defense Minister Chi Haotian was also Vice Chairman of the CMC and a member of the Politburo, equal to a Vice Premier.

In effect, the PLA is co-equal in bureaucratic stature to the entire civilian government as a whole, not to MFA or other ministries. The CMC and State Council are equal in grade, each headed by a National Level Leader (CMC Chairman, Premier) with grade 2 National Level Deputy Leaders directly subordinate.¹⁹ This creates a structural problem in the coordination of military actions with other foreign policy behavior, since no one below the Politburo Standing Committee has seniority over all the relevant actors.

At the first Plenum of the 18th Central Committee in November 2012, Wang Huning was named to the Politburo, and it seems likely he will become the senior manager of Chinese foreign affairs. This makes him equal in bureaucratic rank to the most senior uniformed PLA officers, CMC Vice Chairmen Fan Changlong and Xu Qiliang. This should somewhat ameliorate the structural problem in coordination of military and diplomatic efforts, but it will not remove the many other barriers to inter-agency coordination in China's stove-piped system.

¹⁹ For an insightful discussion of the role of rank in the Chinese political system, see Kenneth Lieberthal, *Managing the China Challenge: How to Achieve Corporate Success in the People's Republic*, Brookings Institution Press, 2011, p. 50-52.

Table 1: Assessed Comparison of Selected Military and Civilian Positions²⁰

PLA Position	PLA duty position grade (职务等级)	Civil duty position level (职务层次)	Civil grade (级别)	Civil position
CMC Chairman	(none)	National Level Leader (国家级正职)	1	President Party General Secretary Premier Chairman, NPC SC Chairman, CPPCC SC PBSC member
CMC Vice Chairman	CMC Vice Chairman	National Level Deputy Leader (国家级副职)	2	PB Member Vice President Vice Premiers (Others?)
CMC Member COGS, Dir. GPD, GLD, GAD Cdr, PLAN, PLAAF, PLASAF	CMC Member		3	State Council member (Others?)
MR Commander or PC DCOGS	MR Leader ²¹ (正大军区职)		4	(Various)
MR Deputy Commander ACOGS DDir GLD, GAD DCdr PLAN, PLAAF, PLASAF	MR Deputy Leader (副大军区职)	Province or Ministry Level Leader (省部级正职)	4-8	Ministers (incl. MFA?) Governors and Provincial Party Secretaries

Defense Minister Responsibilities

As an individual, the Defense Minister is the military interface between the military and the State. Specifically, he is the member of the CMC whose portfolio and responsibilities are to represent military equities as well as to liaise with the State Council in areas of overlapping concern. He is

²⁰ Notice that the elevation of the PLAN, PLAAF, and PLASAF commanders to CMC membership created a structural flaw in their services. The service deputy commanders, who are MR Deputy Leader grade, cannot be promoted directly to service commander and therefore CMC Member without violating the strong norm against two-grade “helicopter” promotions, so their only route to service command is through being a Deputy Chief of General Staff (DCOGS). Ground force officers, meanwhile, can get to the CMC either from DCOGS or from MR command.

²¹ This grows more speculative as we move down the grade structure. Who is co-equal to a provincial governor, his corresponding Provincial Military District (MD) commander or the next-higher MR commander? Are all governors even of the same grade, as we can be confident that all MD commanders are? How do MR Leader-grade deputies in the four General Departments relate to their civil counterparts? These would be good topics for discussion with Chinese interlocutors.

also a vice chairman of the National Defense Mobilization Committee (国家国防动员委员会), which was established in 1994 under the “dual control” of the CMC and State Council.²² While his position as a State Councilor provides him with the appropriate status in the State system to participate in cabinet executive meetings, his status is probably informally greater than other State Councilors because he represents the CMC, which is an organization of the same weight as the State Council as a whole.²³ This was most likely even more evident when Chi Haotian and Cao Gangchuan, who held higher CMC and Party rank, were defense ministers.

Although no information was found that clearly identifies the defense minister’s specific responsibilities, a review of the venues that Liang Guanglie has attended and the topics he has spoken about provide a fairly good overview of the types of overlapping civil-military issues MND is tasked to coordinate, as well as MND’s and the Defense Minister’s responsibility for representing the PLA publicly at home and abroad.

Military Diplomacy Responsibilities

One of the most visible components of the defense minister’s portfolio is military diplomacy at home and abroad, which he apparently shares with the Chief of the General Staff (COGS) and the Deputy Chief of the General Staff (DCOGS) whose portfolio includes foreign affairs. The Defense Minister appears to have clear responsibilities for hosting foreign defense ministers and meeting with other senior foreign military leaders in Beijing. In some cases, he shares responsibilities with the COGS and DCOGS, such as meetings with the Shanghai Cooperation Organization (SCO) at home and abroad and the Shangri-La Dialogue in Singapore. At the same time, however, it appears that COGS or DCOGS, rather than the Defense Minister, has represented China during strategic partnerships, dialogues, and consultations.

Meetings with Foreign Defense Ministers

The Defense Minister frequently hosts foreign military delegations at home and represents the PLA abroad (See Appendix C for foreign visits by recent defense ministers and Appendix D for a comparison of meetings held by Defense Ministers Chi Haotian, Cao Gangchuan, and Liang Guanglie during a typical year.) In addition to his foreign relations portfolio, he speaks at home about the defense budget, defense mobilization, civil defense, enlisted force recruitment/conscription, militia affairs, national defense education for civilians, disaster relief, local government responsibilities for security near military installations, and preferential civil government treatment for wounded veterans. He also presents defense legislation before the NPC. Furthermore, he represents the military in establishing defense requirements associated with major infrastructure programs, such as high speed highways, railroads, airfields, and communication networks.

Shanghai Cooperation Organization

The Defense Minister, COGS, and DCOGS for foreign relations appear to share responsibility for SCO activities. Specifically, the Defense Minister has participated in every SCO Defense Ministers’ Meeting at home and abroad since 2001 and has attended some of the joint exercises.

²² <http://baike.baidu.com/view/268241.htm>. The committee’s Chairman is Premier Wen Jiabao. The two Vice Chairmen are Defense Minister Liang Guanglie and State Councilor and State Council Secretary General Ma Li. The committee’s Secretary General is Deputy Chief of the General Staff Admiral Sun Jianguo, whose portfolio includes defense mobilization.

²³ The top leadership of the State Council and the “State” CMC is “elected” by the full National People’s Congress.

For example, the Defense Minister (Cao and Liang) also attended the Peace Mission-2004 exercise in China, the “Peace Mission-2007” joint anti-terrorism exercise in Russia, and the “Peace Mission-2010” joint anti-terrorism exercise in Kazakhstan.²⁴

Meanwhile, the COGS or DCOGS have participated in the planning and execution of combined exercises. For example, in May-June 2012, the COGS, General Chen Bingde, visited Tajikistan, where he attended an SCO Defense Meeting to discuss the Peace Mission-2012 Exercise. He also visited Uzbekistan Turkmenistan on the same trip.

Strategic Partnerships, Dialogues, and Consultations

Since the 1990s, China has built a three-tiered structure for strategic relations—strategic partnerships (战略伙伴), strategic dialogues (战略对话), and strategic consultations (安全磋商)—with at least 22 countries to discuss key issues such as non-proliferation, counter-terrorism, bilateral military and security cooperation, disaster relief, peacekeeping, maritime safety, border joint patrols, and non-proliferation.²⁵

As President, Jiang Zemin and Hu Jintao attended several of the first meetings to establish the relationship; however, the Premier, Foreign Minister, one of the Vice Foreign Ministers, the COGS, or one of the DCOGS attended the follow-on meetings.²⁶ The Defense Minister has apparently never attended any of these venues.

The Shangri La Dialogue

The only other venue found where both the Defense Minister and the DCOGS for foreign affairs have participated at different times has been at the United Kingdom’s Institute for International Strategic Studies (IISS) track-one Asia Security Summit in Singapore, which is better known as the Shangri-La Dialogue. The dialogue, which began in 2002, is held during June each year. Today, the participants include defense ministers and senior military officers from 28 Asia-Pacific states. Since 2007, the PLA has attended the Shangri La Dialogue and has been led by the following officers:²⁷

²⁴ Sun Shangwu, “Peace Mission 2005 ends in blaze of glory, China Daily, 26 August 2005, found at www.chinadaily.com.cn/english/doc/2005-08/26/content_472436.htm. “China, Russia satisfied with joint anti-terror military exercise,” Xinhua, 25 July 2009, found at http://eng.mod.gov.cn/SpecialReports/2009-07/25/content_4016909.htm. “Chinese defense minister to observe SCO anti-terror drill in Kazakhstan,” Xinhua, 24 September 2010, found at http://eng.mod.gov.cn/SpecialReports/2010-09/24/content_4196175.htm.

²⁵ PRC 2010 *Defense White Paper*. A review of each relationship shows that strategic consultations is the generic term for a group of discussions, including the Chief of the General Staff dialogue (总参谋对话), Defense and security consultation (防务安全磋商/ 防务与安全磋商), Defense and strategic consultation (防务战略磋商), Defense consultation (防务磋商), Defense strategic consultation (防务战略磋商), Meetings (会议), Military cooperation dialogue (军事合作对话), Security consultation (安全磋商), Security dialogue and cooperation (安全对话与合作), Strategic and security consultation (战略与安全磋商), Strategic consultation (战略磋商), and Strategic defense consultation (战略防务磋商).

²⁶ The DCOGS who attended the meetings has usually been the deputy with the foreign affairs portfolio.

²⁷ PRC 2008 and 2010 *Defense White Papers*. Information on the Shangri-La Dialogue can be found at www.iiss.org/conferences/the-shangri-la-dialogue/about/ and http://en.wikipedia.org/wiki/Shangri-La_Dialogue.

- 2007: DCOGS Lieutenant General Zhang Qinsheng, who was the DOGS in charge of intelligence and foreign affairs²⁸
- 2008, 2009, and 2010: DCOGS Lieutenant General Ma Xiaotian, who was the DOGS in charge of intelligence and foreign affairs²⁹
- 2011: Defense Minister Liang Guanglie³⁰
- 2012: Lieutenant General Ren Haiquan, Vice President of the PLA's Academy of Military Science³¹

It is not clear why the Defense Minister has not been the primary participant at each of the sessions. In addition, the PRC did not state why neither the DCOGS nor Defense Minister participated in 2012, even though Defense Minister Liang Guanglie attended the ASEAN Defense Ministers Meeting in Cambodia in July.

The Next Defense Minister

Changes in the CMC normally occur during the Party Congress held every five years. Historically, however, the new Defense Minister is not officially named and does not assume his position until the National People's Congress that takes place in the spring following the Party Congress. For example, although Liang was replaced as the COGS at the 17th Party Congress, he stayed on the CMC without an assigned position. Once the NPC officially selected him as the Defense Minister in March 2008, he assumed his CMC Member position and was listed first in protocol order. As such, although the 18th Party Congress was held in November 2012, the next Defense Minister, General Chang Wanquan, will not officially be named and assume his position until the 12th NPC in early 2013. See Appendix B for Chang's profile.

MND Responsibilities and Organizational Structure

Although the Defense Minister speaks publicly about a wide range of topics, MND is not necessarily responsible for the content of all those topics. The reason for this is that all of MND's subordinate organizations are dual-hatted, with most of the resources and personnel to handle the issues housed under the CMC or General Departments. One area that remains unclear is the role the Defense Minister has in tasking and overseeing functions carried out under MND auspices or whether the parent organizations have that responsibility and, at the end, turn the results over for approval and release by the Defense Minister. This section discusses MND's responsibilities and organizational structure.

²⁸ Zhang only served as one of the DCOGS from December 2006 until June 2007. Immediately after the Shangri-La Dialogue, he was appointed as the Guangzhou Military Region commander. Information found at <http://baike.baidu.com/view/763190.htm>. His speech can be found at www.iiss.org/conferences/the-shangri-la-dialogue/shangri-la-dialogue-2007/plenary-session-speeches-2007/second-plenary-session--lt-gen-zhang-qinshen/.

²⁹ Information, including Ma Xiaotian's speeches, can be found at www.iiss.org/conferences/the-shangri-la-dialogue/shangri-la-dialogue-2008/plenary-session-speeches-2008/second-plenary-session-the-future-of-east-asian-security/second-plenary-session-lt-general-ma-xiaotian/, www.iiss.org/conferences/the-shangri-la-dialogue/shangri-la-dialogue-2009/plenary-session-speeches-2009/second-plenary-session-lieutenant-general-ma-xiaotian/, and www.iiss.org/conferences/the-shangri-la-dialogue/shangri-la-dialogue-2010/plenary-session-speeches/second-plenary-session/ma-xiaotian/.

³⁰ Liang Guanglie's speech can be found at www.iiss.org/conferences/the-shangri-la-dialogue/shangri-la-dialogue-2011/speeches/fourth-plenary-session/general-liang-guanglie-english/.

³¹ "Defense ministry spokesman: China hopes Shangri-La Dialogue to boost mutual understanding and trust," PLA Daily, 1 June 2012, found at http://eng.mod.gov.cn/Press/2012-06/01/content_4373014.htm.

MND Responsibilities

Today, MND is the public face for the PLA both domestically and internationally. It is best known internationally for managing the PLA's foreign relations program, which is based on close coordination between the Defense Minister, wearing his CMC and State Councilor hats, and the Deputy Chief of the General Staff who is responsible for foreign relations and intelligence. MND is also the lead organization under the State Council and CMC that represents China in coordinating with the United Nations on peacekeeping operations (PKO), although the troops (regardless of their specialty) and resources actually deployed fall under the GSD or the People's Armed Police (PAP).³² Finally, it is responsible, along with GSD's Military Affairs Department and Mobilization Department, for the annual enlisted force recruiting/conscription process.

MND Structure

Based on the information available, MND consists of the following organizations, each of which is dual hatted and is essentially a shadow or front for corresponding elements of the PLA. As a result, each component has a PLA grade. Table 2 shows the MND component's organization name, the base organization (CMC, GSD, or GPD), actual name with the base organization, and the organization's PLA grade.

Table 2: MND Organizations

MND Organization Name	Base Organization	Actual Name in the Base Organization	PLA Grade
MND General Office (办公厅)	CMC	CMC General Office	Military region deputy leader
MND Foreign Affairs Office (外事办公室)	GSD	GSD Foreign Affairs Office	Corps leader
MND International Communication Bureau (国际传播局)	GPD	GPD Propaganda Bureau Foreign Propaganda Bureau	Division Leader
MND Peacekeeping Office (维和事务办公室)	GSD Second (Intelligence) Department	GSD Peacekeeping Bureau	Corps deputy leader
MND Recruitment Office (征兵办公室)	GSD	GSD Mobilization Department	Corps leader

Of particular note, MND does not have a Political Department (政治部), which further emphasizes that it does not have any personnel assigned and that the General Political Department (GPD) is responsible for managing MND's political work and reinforces the view that MND is a front for the CMC and General Departments.

³² PAP is also under "dual control," with the Ministry of Public Security (MPS) responsible for administrative functions and the CMC for military functions. PAP is discussed in a separate chapter.

General Office

As with most PLA and PRC organizations, the General Office (办公厅) is responsible for managing the daily affairs of the headquarters and is the hub for all information that moves between the leaders and lower organizations.

It appears that the CMC's General Office serves concurrently as MND's General Office. Based on a detailed history of the CMC's General Office, a single General Office has served the CMC and MND since the 1950s, and, in some cases, served the GSD at the same time. The General Office's history is shown below:³³

- November 1949: The Central People's Government People's Revolutionary Military Commission's General Office was created
- October 1954: The name was changed to the CMC General Office and was also called the MND General Office
- November 1965: The General Office was also called the GSD General Office and served all three organizations
- Cultural Revolution: Was subordinated only to GSD
- April 1979: The GSD General Department General Office and CMC General Office were split, with the CMC General Office also being called the MND General Office.

The CMC General Office, which is also the MND General Office, is a military region deputy leader-grade (副大军区制) organization.³⁴ Although not stated in available authoritative PRC descriptions, this suggests that each of MND's offices and bureaus are dually subordinate to the General Office and the appropriate General Department.

Foreign Affairs Office Responsibilities

In reality, MND's Foreign Affairs Office (MND FAO/外事办公室/外办) is the GSD's Foreign Affairs Office (GSD FAO/外事办公室) and also serves as the CMC Foreign Affairs Office.³⁵ Together, they serve as the foreign affairs organization for the CMC, GSD, and MND.³⁶ MND FAO/GSD FAO resides in its own building, located at No. 25 Huangsi Dajie Dewai in Beijing's

³³ Information on the history of the General Office was found at www.360doc.com/content/11/0708/02/5257523_132252865.shtml.

³⁴ This information is based on an Internet posting that appears reliable and was accessed at <http://bbs.ncku1897.org/forum.php?mod=viewthread&tid=2769249&page=1>. A biography for the current director, Lieutenant General Wang Guanzhong, also states that his grade is that of a military region deputy leader. He was promoted from major general to lieutenant general in 2009. His bio was accessed at www.3zhao.cn/forum.php?mod=viewthread&tid=15672.

³⁵ The history of Foreign Affairs Office can be found at www.360doc.com/content/10/0918/19/896167_54674643.shtml. The fact that MND FAO serves the CMC, MND, and GSD is confirmed by business cards handed out by the various members at different events attended by the authors over several years. Furthermore, over the years, several MND FAO members have acknowledged that it is a GSD bureau. In addition, the annual *World Military Yearbook* lists the Foreign Affairs organization as being subordinate to GSD.

³⁶ One blog in particular identified MND FAO and the GSD FAB as the same organization: http://blog.sina.com.cn/s/blog_694e9bca0100oih7.html. Several Internet entries continue to identify the existence of GSD's FAB, but they do not identify the director. These websites include http://post.8684.cn/o42305_5.htm, www.douban.com/note/127982258/, and http://bbs.tiexue.net/post2_2727230_2.html/post_2701563_1.htm.

Xicheng District, not the Bayi Building that was opened in July 1999.³⁷ According to past and current U.S. military attachés, the PLA holds meetings with foreign attachés at the GSD FAB location, which has its own reception room, while senior PLA leader meetings with all foreign delegations take place in the Bayi Building.

MND FAO is a corps leader-grade second-level department, which means that it is equal in grade and can deal directly with and have the same clout as the other second-level GSD departments, including GSD's Intelligence (Second) Department (2PLA). MND FAO's current director is a major general.

Based on analysis of its responsibilities, MND FAO manages military diplomacy, while 2PLA manages intelligence. This most likely involves a dual chain of command based on function. Specifically, PLA military attachés most likely report to MND FAO on questions related to military-to-military relations, but they probably report to 2PLA on intelligence matters. At the GSD deputy chief level, both portfolios are united under one DCOGS. As such, the DCOGS in charge of foreign relations most likely coordinates with both the Defense Minister and the COGS.

In one of its most visible roles, MND FAO is primarily responsible for managing all of the PLA's interaction with foreign military attachés stationed in Beijing. In addition, MND FAO controls the PRC's military mission to the United Nations (驻联合国军事参谋团) and the Chinese delegation to the Korean Armistice Commission at Panmunjom.

Foreign Affairs Office—A Brief History

According to various Chinese blogs, the Foreign Affairs Office had its origins in 1951, when the CMC created a Foreign Liaison Division (外联处).³⁸ After MND was formed in 1954, it used this office as a base to establish a subordinate Foreign Affairs Office in 1955 that received dual guidance from the General Staff Department's (GSD's) Intelligence (Second) Department and MND's General Office (办公厅). In 1959, it came solely under MND's General Office. In January 1964, it was expanded to become the Foreign Affairs Bureau (外事局) under the General Office. The bureau created a subordinate General Office (办公室) and three numbered divisions:

- 1st Division (一处): Military Attachés (武官)
- 2nd Division (二处): Military Assistance (军援)
- 3rd Division (三处): Research (调研).

In 1965, the bureau was re-subordinated under GSD, where it underwent unidentified organizational adjustments. From that time forward, GSD's Foreign Affairs Bureau often used the name "MND Foreign Affairs Bureau" as a front for its activities.

³⁷ "Bayi Building" found at <http://baike.baidu.com/view/1017607.htm>. Construction began in March 1997.

³⁸ The information in this section on the Foreign Affairs Office's subordinate organizations comes primarily from a blog on MND organizational structure found at <http://wenwen.soso.com/z/q188261375.htm>. Additional footnotes will identify other sources for the material.

In December 1998, GSD changed the name of the Foreign Affairs Bureau to the Foreign Affairs Office (总参外事办公室) and MND changed the name of its Foreign Affairs Bureau (FAB/外事局) to the Foreign Affairs Office (外事办公室/外办) to coincide with the GSD name change.³⁹ Besides the name change, the new office was also upgraded to a corps leader-grade organization, which now allows it to deal as an equal with GSD's Second Department and GSD FAO's counterpart in the Ministry of Foreign Affairs.⁴⁰

Foreign Affairs Office—Current Structure. Today, MND FAO has a director and about five to six deputy directors.⁴¹ It also has at least the following subordinate seven bureaus, each of which is a division leader-grade organization:⁴²

- General Planning Bureau (综合局)
- Military Assistance and Arms Control Bureau (军援军控局)⁴³
- Asian Affairs Bureau (亚洲局), which includes South Asia and Southeast Asia, as well as plus Asia-Pacific multilateral security cooperation (亚太多边安全合作政策) policy⁴⁴
- European and Asian Affairs Bureau (欧亚局), which includes Western and Eastern Europe, Russia, and East Asia⁴⁵
- American and Oceania Affairs Bureau (美洲大洋洲局)

³⁹ Ou Can, "Ministry of National Defense Holds Spring Festival Reception," *Liberation Army Daily*, 17 January 1998. Information was also found at www.360doc.com/content/10/0918/19/896167_54674643.shtml. The changes went into effect on 1 January 1999.

⁴⁰ <http://military.people.com.cn/mediafile/201201/13/F201201131125241882725157.jpg>.

⁴¹ Although a corps leader-grade officer can hold the primary rank of major general and secondary rank of lieutenant general, the directors of the FAO so far have all been major general. In addition, the deputy directors can have the primary rank of major general or secondary rank of senior colonel. So far, however, most of the directors have been major generals or are promoted to major general within a year of being appointed.

⁴² The primary rank for a division leader-grade organization is a senior colonel and the secondary rank is a major general. To date, most, if not all, of the directors have been senior colonels. Information on the seven bureaus was found at <http://wenwen.soso.com/z/q188261375.htm> with a date of 23 April 2010.

⁴³ In 1995, the PRC's *White Paper on China's Arms Control and Disarmament* stated that the State Administrative Committee on Military Products Trade (SACMPT), under the leadership of the State Council and the Central Military Commission, was responsible for the centralized control of transfers of military equipment and related technologies. Its main function is drafting laws and policies governing such transfers. The committee consisted of various government and military organizations, while the State Bureau of Military Products Trade (SBMPT) was responsible for handling day-to-day affairs. In 1998, SACMPT was abolished, COSTIND was renamed the new COSTIND (or State COSTIND) comprised only of civilians, and the General Armament Department (GAD) was created. However, in 2008, the Ministry of Industry and Information Technology (MIIT) was created and the new COSTIND was renamed and downgraded to the State Administration for Science, Technology, and Industry for National Defense (SASTIND). Although the *2010 Defense White Paper* had a short paragraph on arms control and disarmament, no details about the organizational structure were provided. As a result, it is not clear what the current responsibilities for MIIT, SASTIND, MND, GSD, and GAD are for arms control and disarmament. The information on the changes above can be found at: "Research on the People's Republic of China's Arms Control and Disarmament History," China Institute of International Studies (CIIS), 1 August 2012, www.ciis.org.cn/english/2012-8/01/content_5207330.htm; Evan S. Medeiros, Bates Gill, "Chinese Arms Exports: Policy, Players, and Process," August 2000 By, page 35, www.fas.org/nuke/guide/china/doctrine/chinarms.pdf; and "China-U.S. Strategic Nuclear Dynamic Conference," 21-21 June 2006, found at http://csis.org/files/media/isis/events/060620_china_nuclear_participants.pdf.

⁴⁴ Information on Southeast Asia was found at <http://talk.weibo.com/ft/201206276144?page=1>. Information on South Asia was found at <http://mil.eastday.com/m/20120626/u1a6653608.html>.

⁴⁵ Information was found at <http://news.163.com/12/0427/03/802KVE5F00014AED.html>, <http://mil.huanqiu.com/Exclusive/2010-11/1230964.html>, and <http://politics.people.com.cn/GB/70731/15984873.html>.

- West Asian and African Affairs Bureau (西亚非洲局)
- Information Office (新闻局).

Ministry of National Defense Information Office and Website

In May 2008, MND FAO created a subordinate Information Office (新闻事务局/新闻局) and officially set up a spokesman system (新闻发言人制度) within the office.⁴⁶ The director of the Information Office also serves as the primary spokesman for the PLA through MND, but the deputy directors also fulfill that function as well.⁴⁷ According to the *China's National Defense 2010*, the Information Office releases important military information through regular or irregular press conferences and written statements.

In addition, on 20 August 2009, MND inaugurated an official website to serve as a new platform for releasing military and defense related information.⁴⁸ There are both Chinese and English versions of the website. Each website displays a different format and the content varies somewhat between the two sites.⁴⁹

Although no information was found, the Information Office and website are most likely closely affiliated with the General Political Department's (GPD's) Propaganda Department, and are probably run out of that department in coordination with the GSD's Foreign Affairs Bureau. It is not clear how this office coordinates with the State Council Information Office and with the Ministry of Foreign Affairs.

Military Attachés

The PLA identifies its military attachés as being subordinate to the Foreign Affairs Office and the patches on the uniform have the characters for MND on them, but it is common knowledge that they are actually subordinate to the GSD's Intelligence (Second) Department. Since 1988, the number of Chinese military attaché offices abroad has grown from 58 to 109, and the number of foreign countries with attaché offices in Beijing has more than doubled from 44 to 103.⁵⁰

⁴⁶ PRC 2010 *Defense White Paper*. Of note, although the Chinese for the Information Office is 新闻局, which translates as Information Bureau, the PLA has officially translated it as an office. This was part of a government-wide effort to show greater transparency.

⁴⁷ Photos of the director and one deputy director along with their titles as spokesman was accessed at www.mod.gov.cn/reports/201108/wfbwsx/2011-07/21/content_4287428.htm. The deputy director in the photo is a colonel (primary rank) with the grade of division deputy leader.

⁴⁸ PRC Ministry of National Defense Prepares to Open Website for Military Transparency," *Ta Kung Pao*, 8 May 2008. "China's defense ministry launches official website," *China Daily* in English, 20 August 2009. www.chinadaily.com.cn/china/2009-08/20/Content_8592527.htm. The Chinese version of the new MND website is www.mod.gov.cn. The English version is <http://eng.mod.gov.cn/>.

⁴⁹ There are two Chinese versions—one using traditional characters, which are used in Taiwan, and one using simplified characters, which are used in China.

⁵⁰ Information about the number of attaché offices in 1988 comes from the files of Ken Allen, who was assigned to the U.S. Defense Attaché office in Beijing at the time. For information on the number of attaché offices in since 1998, see the biennial *Defense White Paper*; however, the 2010 version did not have any figures. Based on correspondence in early 2012 with the U.S. Defense Attaché Office in Beijing, 103 foreign countries had military attaché offices in Beijing. One Chinese blog posted in March 2011 provided a list of 86 countries where the PLA has military attachés and included the name of the senior officer, of which 11 were major generals, which implies they are most likely corps deputy leader-grade billets. The 11 countries with major general defense attaches are North Korea, South Korea, Japan, Thailand, Egypt, Russia, Ireland, Britain, Germany, France, and the United States. All

International Communication Bureau

MND created an International Communication Bureau (国际传播局) as early as 2008. Although it is called the MND International Communication Bureau, it is actually the General Political Department's International Communication Bureau (总政国际传播局), which is the same as the GPD Propaganda Department's Foreign Propaganda Bureau (总政宣传部外宣部). They have the same director and the same two deputy directors.⁵¹ The bureau is a division leader-grade organization and the director is a senior colonel.

It is not clear what its function is, but it does produce glossy brochures about the PLA. The titles for three of them, which were available at the PLA's anniversary celebration in Washington in July 2012, are as follows:

- *Defensive in Nature: China's National Defense Policy*
- *Gungchong Tseri: PLA Officer Who Dedicating his Life to Maintaining Ethnic Unity*
- *China's International Rescue Operations.*

Of note, only four *PLA Daily* articles cite the bureau, but the Internet has several articles based on participation in local events.

Peacekeeping Office and Peacekeeping Center

China's National Defense 2010 states that China's involvement in peacekeeping operations (PKO/联合国维和行动) began in 1990 when it sent five military observers to the UN Truce Supervision Organization (UNTSO).⁵² In 2001, MND created a subordinate Peacekeeping Affairs Office (维和事务办公室) to manage all PKO operations. The office, which was identified as the GSD Peacekeeping Office (总参维和办公室) in 2003, has apparently been upgraded to a bureau.⁵³ The Bureau is staffed with approximately 50 personnel, who generally have advanced degrees and extensive overseas experience, including peacekeeping deployments. The bureau's senior officers, who speak fluent English, frequently observe peacekeeping exercises at the various regional training centers, such as the one in Mongolia.⁵⁴ This is another example of MND's use as the "window" for the PLA to conduct its foreign relations.

but one of the remaining officers were senior colonels, which implies they are most likely division leader-grade billets. The foreign ministry similarly "ranks" the countries with which it has diplomatic relations, with about half a dozen rating vice minister-level ambassadors. Various Chinese blogs have incomplete lists of China's military attaché offices, including http://blog.sina.com.cn/s/blog_694e9bca0100oih7.html dated 8 March 2011.

⁵¹ Two separate articles about the same visit in October 2008 by the bureau's director to Xinhua identified the bureau as the MND International Communication Bureau and the GPD International Communication Bureau. The articles were found at <http://news.163.com/08/1022/14/40S94NE2000120GU.html> and <http://news.sdinfo.net/gnxw/520990.shtml>. Two separate Internet articles linked the deputy directors, Li Zhen (李真) and Meng Yan (孟彦), to the Propaganda Department's Foreign Propaganda Bureau: <http://roll.sohu.com/20111223/n330074496.shtml>.

⁵² PRC 2010 Defense White Paper.

⁵³ "Chinese Peacekeepers in the African Wilderness Can Surf the Internet," 14 February 2003 at www.cctv.com/news/other/20030214/100287.shtml. "The Second Group of Chinese Peacekeepers in the Sudan Begin Training in Beijing," 31 July 2012 at www.mod.gov.cn/djxw/2012-07/31/content_4388129.htm.

⁵⁴ Information on the bureau's personnel is based on an interview with a U.S. Army attaché, LTC Chris Pultz, who served in Mongolia from 2011 to late 2012 and had the opportunity to interact with the PLA peacekeeping officers.

In addition, in 2009, MND established a Peacekeeping Center (维和中心) in the Huairou District in northeast Beijing for training international PKO personnel.⁵⁵ The 16,000-square-meter facility, which cost 200 million yuan (US\$29 million), also serves as a venue for international exchanges in peacekeeping, including international conferences and training peacekeepers for other countries. With 20 classrooms, including simulation rooms for shooting and driving, the center offers professional courses on peacekeeping missions as well as English. It also offers training facilities for peacekeeping skills, including simulated UN peacekeeping camps and de-mining training grounds, as well as swimming and driving venues.

The director of the PKO Office is one of the deputy directors of the GSD's Intelligence (Second) Department, which indicates the office is subordinate to 2PLA and is a corps deputy leader-grade organization.⁵⁶ The office has subordinate organizations (军区维和事务办公室) in at least the following three military regions (MRs):

- The Beijing MR, which trains medical personnel for PKO operations⁵⁷
- The Lanzhou MR, which trains engineers and medical personnel for PKO operations⁵⁸
- The Jinan MR, which trains engineers, transportation personnel, and medical personnel for PKO operations.⁵⁹ The director of the Jinan MR office is also the director of the Jinan MR Handover Group (济南军区交接组).⁶⁰

It is not clear what the grade for the MR offices are, but the directors are senior colonels and are most likely division leader-grade officers, which implies this is the grade for the offices as well.⁶¹

Recruitment (Conscription) Office: Same Characters, New Meaning

MND's Recruitment Office (征兵办公室), which is also identified as the Conscription Office, is responsible only for enlisted members (士兵/战士), not officers.⁶² Since the Red Army was formed in 1927 and became the PLA in the late 1940s, the military service system (兵役制度) for the enlisted force has gone through several stages as shown below:⁶³

⁵⁵ "China opens 1st peacekeeping training center," Xinhua, 25 June 2009. www.chinadaily.com.cn/china/2009-06/25/content_8324367.htm. "Ministry of National Defense Peacekeeping Center Inaugurated in Beijing's Huairou District," <http://forum.home.news.cn/thread/68174850/1.html>.

⁵⁶ www1.clzg.cn/xinwen/2007-07/30/content_829610_2.htm, <http://go.ourgo.com/Bbs/showtopic-15158.aspx>, and www.mod.gov.cn/djxw/2012-07/05/content_4382945.htm.

⁵⁷ <http://news.qq.com/a/20090222/007495.htm>.

⁵⁸ <http://news.163.com/11/0729/15/7A51SU2600014JB5.html>.

⁵⁹ <http://news.sina.com.cn/o/2007-09-20/060712601700s.shtml>.

⁶⁰ http://chn.chinamil.com.cn/wh/2011-12/12/content_4739389.htm.

⁶¹ The director for the Lanzhou MR Peacekeeping Office is Senior Colonel Zhou Shiliang (周时良), who is a staff officer in the Lanzhou MR Headquarters Department. <http://news.163.com/09/0626/09/5CNNDPQF000120GR.html> and www.baidu.com/s?wd=%22%E5%86%9B%E5%8C%BA%E7%BB%B4%E5%92%8C%E4%BA%8B%E5%8A%A1%E5%8A%9E%E5%85%AC%E5%AE%A4%22&pn=70&ie=utf-8.

⁶² In the PLA, soldier refers only to enlisted personnel and covers all of the services. In the PLA Navy, sailor refers only to enlisted personnel. The PLA does not have a term for airman.

⁶³ Cong Wensheng, "China's Military Service System," and Li Shanshan, "Amendment to the *Military Service Law*, *China Armed Forces*, No. 12, Vol. 4, 2011, p. 22-27 and 28-31, respectively. For an excellent overview of the problems with the current system in recruiting talented personnel and then retaining them, see Chen Silin and Xin

- 1927-1955: Volunteer system (支援兵役制度)
- 1955-1979: Compulsory system (义务兵役制度) requiring service of two years as a conscript (义务兵) based on the *Military Service Law* (兵役法)
- 1979-1998: Increased the required service period to three years with the option of continuing as a volunteer for further service for a maximum of 16 years, which was included in an amended *Military Service Law* in 1984
- 1998-2011: Based on an amended *Military Service Law*, the system based primarily on compulsory service was replaced with a system combining conscripts and volunteers, whereby all new soldiers serve for only two years, but they could remain on active duty as a noncommissioned officer (NCOs/士官). Furthermore, NCOs with certain specialties could remain on active duty for a total of 30 years and receive a pension.
- 2011-Present: Based on yet another amended *Military Service Law*, the system continues to include conscripts and volunteers, but it also includes new incentives for college students and graduates to join the PLA as enlisted personnel.

One of the problems is that the PLA continues to use the term *zhengbing* (征兵) to refer to conscription and recruitment. In addition, even though the percentage of personnel who are voluntarily joining the PLA is increasing, the PLA still has a conscription system to fill the holes and to maintain links with the people. Furthermore, all new two-year soldiers (新兵) are still called conscripts (义务兵) regardless of whether they enlisted voluntarily or were conscripted.⁶⁴ Overall, MND is responsible for coordinating with the civilian side in China's annual enlisted force military recruitment on behalf of the State Council and CMC.⁶⁵ MND's Recruitment Office, which is actually the GSD Mobilization Department (动员部), is the specific organization responsible for overseeing all aspects of the annual enlisted force recruitment cycle.⁶⁶ The grade for the Recruitment Office/Mobilization Department is corps leader. The Recruitment Office also works closely with GSD's Military Affairs Department (军务部), which is responsible for the PLA's Table of Organization and Equipment (TO&E). The Recruitment Office has subordinate recruitment offices in every provincial government.

According to Article 7 of China's *Recruitment Work Regulations* (征兵工作条例), MND's Recruitment Office is responsible for all enlisted force recruitment work under the dual leadership of the State Council and CMC. Each military region is responsible for enlisted force recruitment work within its area of operations under the guidance of MND's Recruitment Office.

Xin, "Current 'Difficulty in Recruiting Military Personnel' and 'Difficulty in Recruiting High-Caliber Military Personnel'," *National Defense* (国防), August 2011, p. 60-62.

⁶⁴ For example, the 2004 *Defense White Paper* used the terms *zhengbing* (征兵) as conscription and *yiwubing* (义务兵) as conscripts to describe the situation at that time for the PLA's new two-year enlisted personnel. Although the 2006 and 2008 *White Papers* did not use either term, the 2010 *White Paper* translated *zhengbing* as recruitment and did not use the term *yiwubing* at all. This represents the PLA's overall attempt to move away from a draft/conscript system to a volunteer system for its enlisted personnel.

⁶⁵ PRC 2004 *Defense White Paper*.

⁶⁶ The director of the MND Recruitment Office and GSD Mobilization Office, who is a major general, is the same person. "PLA Organizations and Leaders," found at http://blog.sina.com.cn/s/blog_694e9bca0100ih7.html and http://bbs.tiexue.net/post2_2727230_2.html/post_2701563_1.html.

The People's Armed Forces Departments (PAFDs) within each military district down to the township level are responsible for carrying out recruitment duties.⁶⁷

The annual enlisted force recruitment process begins each August when the military holds a conference to make arrangements for the upcoming winter recruitment cycle. Operational units for all services and branches determine how many new conscripts and noncommissioned officers (NCOs) are needed for the coming year. The units then submit these figures to each military district and military region headquarters where they are compiled and sent to the GSD.⁶⁸

At the same time, local PAFDs are required to contact all draft-age males who reach the age of 18 before 31 December of the current calendar year. Once registration is complete, the PAFD begins the process in October of reducing the number of potential conscripts. At the end of October, the State Council and the CMC issue the order for the upcoming recruitment period. During November, potential conscripts are screened and then return home to wait for the decision on whether they will be inducted. Around 10 December, all personnel selected for active duty arrive at the designated location (train station or airport) and are escorted to their basic training unit.⁶⁹

Defense Mobilization

Although the State Council and CMC are jointly responsible for defense mobilization under the *National Defense Mobilization Law*, a review of available information indicates that the primary military organization responsible for mobilization is GSD's Mobilization Department, which comes under the guidance of one of the DCOGSSs and the CMC's General Office. There are no indications that MND has any separate subordinate organizations responsible for mobilization activities.⁷⁰ Furthermore, other than Defense Minister Liang Guanglie, who often attends mobilization conferences as both a State Council and CMC representative, there are no indications anyone else from MND is on the State National Defense Mobilization Committee (国家国防动员委员会).⁷¹ A review of the Mobilization Committee's website (www.gfdy.gov.cn) also does not identify any additional MND role or actors, but it does indicate that the four General Departments contribute to the process.

⁶⁷ Information on the Recruitment Office and its responsibilities was accessed at <http://baike.baidu.com/view/2838156.htm>.

⁶⁸ Information on the recruiting process comes from multiple sources, including http://mil.fjsen.com/2009-10/13/content_2063604.htm, http://news.xinhuanet.com/ziliao/2004-06/30/content_1557079.htm, and <http://baike.baidu.com/view/27042.htm>.

⁶⁹ The PLA does not have a central training base for enlisted personnel. They are either sent to their operational unit, where they receive about 6-8 weeks of basic training, or to a technical training base where they first receive basic training followed by specialty training.

⁷⁰ A review of *National Defense* (国防) magazine for the years 2007 to mid 2012 did not find a single article written by anyone from MND, nor did it have any reference to MND other than Defense Minister Liang Guanglie speaking at various mobilization-related meetings. *National Defense* is published by the State National Defense Mobilization Committee and is managed by the Academy of Military Science.

⁷¹ "All-China National Defense Mobilization Building Award Ceremony for 2011," *National Defense*, February 2012, p. 4-7. "Liang Guanglie Attends Jinan Military Region *National Defense* Mobilization Committee's 7th Full Plenum on Recruitment Work and Presents a Speech," *National Defense*, October 2011, p. 5.

Coordination between the CMC and State Council on National Defense Regulations

MND is most likely responsible for coordinating with its counterpart organizations in the CMC, four General Departments, and State Council the drafting and dissemination of joint CMC-State Council regulations relating to civil-military issues, such as those shown below:

- Chongqing National Defense Education Regulations (重庆市国防教育条例)
- Common-use Aviation Flight Management Regulations (通用航空飞行管制条例)
- Conscription Work Regulations (征兵工作条例)
- Military Personnel Bereavement Pension Regulations (军人抚恤优待条例)
- Military Personnel Salary Regulations (军人工资待遇条例)
- Military Support Socialization “12th Five-Year Plan” Regulations (军队保障社会化“十二五”规划)
- Military Uniform Management Regulations (军服管理条例)
- Military-Industry Key Equipment and Installation Management Regulations (军工关键设备设施管理条例)
- Militia Political Work Regulations (民兵政治工作规定)
- PLA Active-duty Enlisted Service Regulations (中国人民解放军现役士兵服役条例)
- Retired Enlisted Personnel Resettlement Regulations (退役士兵安置条例)
- Weapons and Equipment Quality Management Regulations (武器装备质量管理条例).

As can be seen, several of the above regulations deal with the conscription and demobilization of enlisted personnel. This particular set of issues is most likely the responsibility of MND's Conscription Bureau, which coordinates closely with GSD's Military Affairs Department.

Possible Reforms

In late 2011, the PLA's *Military Economic Research* journal published an article criticizing the way the military manages its resources, including its leadership and organizational structure.⁷² Specifically, it identified four key problems which, together, state that the current system of linking resource allocation with operations is inefficient because it is managed by the four General Departments that are top heavy, too vertical, overstaffed, and are not interconnected. To solve this problem, he recommended that MND should establish a number of core departments, including:

- General Office, which would be separate from the CMC General Office
- Development and Planning Bureau
- National Defense Mobilization and Recruitment Bureau
- National Defense Fund Appropriation and Finance Bureau
- National Defense Legal Affairs Bureau
- National Defense Education and Training Bureau,

⁷² Liu Guojing, “Accelerate Transformation of Combat Power Generation Model, Advance Reform of National Defense and Military Organization and Leadership System,” *Military Economic Research*, Issue 11, 2011, p. 13-15. Liu is a professor in the PLA's Xi'an Political Academy. *Military Economic Research* is published by the PLA's Military Economics College in Wuhan, Hubei Province.

- Expert Advisory Committee
- Discipline Inspection, Supervision, and Auditing Bureau.

Although his recommendations are sound and are impressive simply because they were published in an authoritative PLA journal, they will also be difficult to implement for the very reasons he discussed. For example, although MND plays an active role in the conscription process, it apparently is not involved in defense mobilization, which is clearly under the GSD Mobilization Department's jurisdiction and is probably reluctant to share that responsibility. That said, however, the PLA has made some significant changes in the past year, including creating a Strategic Planning Department in the General Staff Department. It has also reformed the former GSD Military Training and Service Arms Department by eliminating the service arms component. These changes are discussed in the GSD chapter. The biggest obstacle to expanding the authority of MND over actual military functions lies in the combination of its historical entwinement with political struggles and the campaign, especially since the Tiananmen Incident of 1989, to underscore that the PLA must remain under the firm and unwavering control of the CCP and that no thought of rendering it into a "state" military can be entertained. Thus, for the foreseeable future, MND seems likely to remain a shadowy organization that mainly functions as a window to the world outside the PLA.

Information Gaps

The discerning reader will have noted that this chapter was able to provide much more information on the organization, history, and publicly defined roles of MND, but has shed very little light on how it actually carries out its functions under the "dual control" system of political power within the Chinese political system or how it conducts its responsibilities as a liaison organization between the People's Liberation Army (PLA) and those outside the PLA, especially domestically. Most of the China-watching community's key information gaps on MND fall under this category of function and process. Some of the most pressing needs for information include:

- What exactly is the role of MND in working joint civil-military issues?
 - What is MND's role in negotiating with other agencies on such issues? Does it have separate authority to negotiate and make deals with civilian agencies that impinge on the PLA's equities? Does it simply present the PLA's (i.e., the CMC's or GSD's) requirements to the civilian side at meetings like State Council executive sessions, with no latitude for discussion?
 - Does it "take messages" back to the CMC and/or GSD or GLD to explain conflicting government requirements, desires, or stumbling blocks? Does it play a "middle man" role, explaining the positions of each side to the other?
 - How much is MND a conduit for PLA demands or *faits accomplis* (for example, on the PLA budget), and how much is there real negotiation?
 - Does MND serve as the negotiator or bring in experts with command or budgetary authority from the general departments?
 - What role does the minister himself play in these issues, as opposed to his staff?
- What role does MND play in civil-military discussions of cross-cutting regulations like those listed in the section above?

- Is there an iterative process on issues like use of airspace (aviation management), equipment and installation management, pensions, placement of retirees, and conscription? Does MND play a role in such discussions or negotiations or turn over the actual work to experts with command, budgetary, or decision-making authority from the general departments?
- Does MND play a role in the drafting or coordination of White Papers with military content, such as the biennial military white papers and papers on such issues as arms control and disarmament?
- How does MND carry out its responsibilities to “be responsible for all of the government’s military affairs” as described in the 2010 statement of MND’s functions provided above?
 - In practice, how does MND’s “dual subordination” to the State Council and the CMC work? MND’s personnel are all career military officers whose futures, promotions, and careers will be determined by the military command under the CMC, GSD, and GPD. What sense of responsibility do they have toward the civilian government and what, if any, real authority or control do civilian officials have over their actions or careers?
 - Does MND have any command authority or other mechanism for control over lower-level actors in issues such as conscription, mobilization, placement of retirees or finding jobs for demobilized soldiers?
- As a member of the State Council’s executive committee, does the Defense Minister ever speak up on issues that are not strictly in his military “lane?” If so, what issues engage his attention, and what effect can he have on such issues? Do defense ministers define their roles as narrowly as possible? As broadly as they can get away with? Has this differed between defense ministers?
- MND conducts “state-to-state” military relations. Does it have any role in military relations with non-state actors such as political parties not in power, arms traders, or revolutionary movements?
- How are MND’s Military Assistance and Arms Control Bureau, regional bureaus, information office, peacekeeping office, and recruitment office staffed? Do they even have a staff, or are these offices really “transoms” over which those outside the PLA can pass messages to the real actors on these issues within the PLA?
 - Is there an MND career path, or are jobs within MND merely assignments in between “real” PLA work? Are such assignments seen as career-enhancing? Dead ends? Detriments to upward movement?
- What is the staffing pattern of MND? Are its offices essentially “empty” or “ghosts” for counterpart elements of the GSD?⁷³
- Does the CCP have a Party grade and rank structure that equate to the PLA and State grade structures?

⁷³ The Chinese refer to this as “one organization with two plaques” (一个机构两块牌子).

Appendix 1: Ministry of National Defense History

From 15-28 September 1954, the PRC's First National People's Congress (NPC/第一届全国人民代表大会第一次会议) held its first plenum in Beijing.⁷⁴ On 20 September 1954, the First NPC adopted the PRC Constitution (中华人民共和国宪法).⁷⁵ The Third Section (第三节) discusses the leadership and responsibilities of the State Council (国务院), but it does not identify the subordinate organizations. It does, however, state that the State Council will "lead armed forces building" (领导武装力量的建设).⁷⁶ On 21 September 1954, the NPC approved the PRC State Council Organization Law (中华人民共和国国务院组织法), whose Second Article includes the creation of the Ministry of National Defense (国防部).⁷⁷ On 27 September 1954, the State Council was officially founded to replace the Central People's Government Administration Council of the People's Republic of China (中华人民共和国中央人民政府政务院), which was created on 1 October 1949.⁷⁸ Once it was created, MND was placed under the dual leadership of the State Council and the CMC.⁷⁹

From 1956 through 1958, the CMC established four research academies under MND, including the 5th (all missiles except air-to-air), 6th (aircraft and air-to-air missiles), 7th (ships), and 10th (electronics). In 1965, all four research academies were re-subordinated from MND to their associated ministries of machine building (MMB), which are sometime identified as ministry of machine industry (MMI): 3rd MMB (aviation) took over the 6th Research Academy; the 4th MMB (electronics) acquired the 10th Academy; the 6th MMB (shipbuilding) received the 7th Academy; and the 5th Research Academy was reorganized and became the 7th MMB (missiles).⁸⁰

Marshal Lin Biao reorganized and strengthened MND in late 1959, but lost control to the CMC for managing research, development, and schools.⁸¹ After Lin's death in September 1971, the minister's position remained vacant until Marshal Ye Jianying was appointed in January 1975. Under Ye, MND again reasserted control over schools and the military-industrial complex until Deng Xiaoping regained his authority in 1978, at which time MND once again yielded most of its authority to the CMC. The center of gravity of military authority thus seems to have oscillated between MND and the CMC from 1954 to 1978.

Although MND's most visible role has been the PLA's foreign relations program at home and abroad, it has also been responsible for coordinating civil-military issues as discussed earlier in the chapter.

⁷⁴ <http://forum.home.news.cn/thread/95574022/1.html>

⁷⁵ <http://e-chaupak.net/database/chicon/1954/1954bilingual.htm>

⁷⁶ *Ibid.*

⁷⁷ http://law.lawtime.cn/d656693661787_2_p1.html

⁷⁸ www.hudong.com/wiki/%E5%9B%BD%E5%8A%A1%E9%99%A2

⁷⁹ *2010 World Military Yearbook* (世界军事年鉴), (Beijing: PLA Press), p. 142.

⁸⁰ Deng Liqun, Ma Hong, Wu Heng, ed., *China Today: Defence Science and Technology*, (In English), Vol I & II, Beijing, National Defence Industry Press, 1993.

⁸¹ Deng Liqun, Ma Hong, Wu Heng, ed., *China Today: Defence Science and Technology*, (In English), Vol I & II, Beijing, National Defence Industry Press, 1993.

Appendix 2: China's 11 Defense Ministers

From 1954 until early 2013, MND has had 11 Defense Ministers. As a general rule, because of their concurrent positions they have held in the CMC and Party, the Defense Minister has been one of the most powerful individuals in the PLA.⁸² The following bullets provide information on each Defense Minister:

1. Sep 1954-Aug 1959: Marshal Peng Dehuai (彭德怀), who served concurrently as a CMC executive vice chairman who managed the CMC's daily affairs⁸³
2. Aug 1959-Sep 1971: Marshal Lin Biao (林彪), who served concurrently as CMC vice chairman, a member of the Politburo, the Politburo Standing Committee, and as a vice chairman of the CCP Central Committee⁸⁴
3. Sep 1971-Jan 1975: Position vacant following Lin Biao's attempted coup against Mao Zedong and his subsequent death in an airplane crash. The absence of a Defense Minister for over three years not only reflects the chaotic period of the Cultural Revolution, but also reveals that the position was not seen as central to the functioning of the PLA.
4. Jan 1975-Mar 1978: Ye Jianying (叶剑英), who served concurrently as executive vice chairman of the CMC with responsibilities for its day to day affairs and as a CCP vice chairman⁸⁵
5. Mar 1978-Mar 1981: General Xu Xiangqian (徐向前), who served concurrently as a CMC Standing Committee Member, Vice Premier in the State Council, and a Politburo Member⁸⁶
6. Mar 1981-Nov 1982: Geng Biao (耿飚), who served concurrently as a CMC Standing Committee Member, Vice Premier of the State Council, and State Councilor⁸⁷
7. Nov 1982-Apr 1988: Zhang Aiping (张爱萍), who served concurrently as Deputy Secretary General of the CMC and State Councilor⁸⁸

⁸² Of note, in comparison to the lengthy entries on the CMC and general departments, the two versions of the Academy of Military Science's *China Military Encyclopedia* (1997 and 2007) each has only one short item on defense ministries in general and merely lists the PLA's Defense Minister. Guan Junjie and Sui Dongsheng, "Ministry of National Defense," in *China Military Encyclopedia* (中国军事百科全书), (Beijing: Academy of Military Science Press, July 1997), Vol 2, p. 144. "Department of National Defence," in *China Military Encyclopedia* (Beijing: Encyclopedia of China Publishing House, July 2007), *Military Organization* (军制) Volume 1, p. 35-37.

⁸³ *Dictionary of China's Communist Party Central Committee Members for 1921-2003*, (中国共产党历届中央委员大辞典), (Beijing: Chinese Communist Party History Press, 2004), p. 561-562.

⁸⁴ *Ibid*, p. 406-409.

⁸⁵ *Ibid*, p. 960-961. Although the PLA abolished ranks in 1965, Ye had been one of the ten marshals chosen in 1955.

⁸⁶ *Ibid*, p. 900-901. Although the PLA abolished ranks in 1965, Xu had been one of the generals chosen in 1955.

⁸⁷ *Ibid*, p. 164-165. Geng spent much of his career in overseas diplomatic billets. After the PRC was formed in 1949, Geng served as the ambassador to Sweden, Pakistan, Myanmar, and Albania. He returned to China in 1971, and served in Party propaganda billets. In 1978, he was appointed as vice-premier of the State Council, in charge of foreign relations, military industry, civil airlines and tourism. In January 1979, he became the secretary-general and member of Standing Committee of CPC's Central Military Commission. In 1981, he became the Minister of National Defense, and became state councilor the following year. In 1983, he became vice chairman of the Standing Committee of the National People's Congress, and chairmen of foreign relation committee in NPC. http://en.wikipedia.org/wiki/Geng_Biao.

⁸⁸ *Ibid*, p. 1002-1003. In 1955, Zhang was given the rank of general and resumed it when the PLA re-instituted ranks in 1988.

8. Apr 1988-Mar 1993: General Qin Jiwei (秦基伟), who served concurrently as a CMC Member and State Councilor⁸⁹
9. Mar 1993-Mar 2003: General Chi Haotian (迟浩田), who served concurrently as a CMC Vice Chairman, State Councilor, and Politburo Member⁹⁰
10. Mar 2003-Mar 2008: General Cao Gangchuan (曹刚川), who served concurrently as a CMC Vice Chairman, State Councilor, and Politburo Member⁹¹
11. Mar 2008-Mar 2013: Liang Guanglie (梁光烈), who served concurrently as a CMC Member and State Councilor.⁹²

Defense Minister General Chang Wanquan

General Chang Wanquan (常万全) was selected as the 11th Defense Minister during the 18th Party Congress in November 2012, but he did not officially assume the position until the 12th NPC in 2013. During the interim, however, he remained as a CMC member. As the Defense Minister, Chang is concurrently a State Councilor and a Party and State CMC member. Chang's biographical information is shown below.⁹³

Date of Birth: January 1949

Place of Birth: Nanyang, Henan Province

Ethnicity: Han Chinese

Education:

- Sep 1985 – Jul 1987: Graduated, Correspondence Program, Weinan Specialized Teachers School, Shaanxi province
- Mar 1994 – Jan 1995: Student, Basic Course, National Defense University

Military Background:

- Mar 1968: Joined the PLA and CCP (age 19) as an Army enlisted member and became a squad leader
- Jul 1970: Staff Officer, Headquarters Department, Operations and Training Office, 140th Division, 47th Army⁹⁴, Linton, Shaanxi Province, Lanzhou Military Region⁹⁵
- Mar 1974: Staff Officer, Headquarters Department, Operations and Training Division, 47th Army
- Feb 1978: Staff Officer, Headquarters Department, Operations Department, Second Office, Lanzhou Military Region

⁸⁹ *Ibid*, p. 594.

⁹⁰ *Ibid*, p. 94-95.

⁹¹ http://en.wikipedia.org/wiki/Cao_Gangchuan.

⁹² http://en.wikipedia.org/wiki/Liang_Guanglie. Liang will retire and be replaced during the National People's Congress in early 2013.

⁹³ Information on Chang's military career was found at <http://baike.baidu.com/view/325385.htm>.

⁹⁴ Most Westerners translate *jun* (军) as army as in the 47th Army; however, the 1997 and 2007 versions of *China Military Encyclopedia* translates *jun* as corps. For example, see "47th Corps of the CPLA (中国人民解放军第47军)," *China's Military Encyclopedia's* (Second Version) *PLA Military History*, Beijing: Encyclopedia of China Publishing House, December 2007, Vol 2, p. 481-482.

⁹⁵ According to the *China Military Encyclopedia*, the 47th Corps was located in Hunan Province in 1950. According to baidu.com, in 1970, the 47th Corps moved from Hunan to northern Shaanxi Province. See <http://baike.baidu.com/view/184851.htm>.

- Sep 1978: Secretary, Headquarters Department, General Office, Secretariat Office, Lanzhou Military Region
- Mar 1980: Deputy Director, Headquarters Department, Operations Division, 47th Army
- Mar 1981: Director, Headquarters Department, Operations Division, 47th Army
- May 1983: Staff Officer, Headquarters Department, 140th Division, 47th Army
- Sep 1985: Deputy Commander, 140th Division, 47th Army
- Sep 1990: Director, Headquarters Department, Operations Department, Lanzhou Military Region
- Feb 1992: Commander, 61st Division, 20th Group Army, Kaifeng, Henan Province, Jinan Military Region⁹⁶
- Nov 1994: Chief of Staff, Headquarters Department, 47th Group Army, Lintong Shaanxi Province
- Jun 1998: Director, Campaign Teaching and Research Office, National Defense University
- Oct 2000: Commander, 47th Group Army
- Jan 2002: Chief of Staff, Headquarters Department, Lanzhou Military Region
– Member, 16th CCP Party Congress Central Committee
- Dec 2003: Chief of Staff, Headquarters Department, Beijing Military Region
- Dec 2004: Commander, Commander, Shenyang Military Region
- Sep 2007: Director, General Armament Department and (Oct 2007) CMC Member
– Oct 2007: Member, 17th CCP Party Congress Central Committee
- Oct 2012: CMC Member (replaced as Director, GAD)
- Mar 2013: Defense Minister

Senior Officer Rank Promotions:

- 1988: Senior colonel
- Nov 2007: General (3 stars)
- Early 2003: Lieutenant general (2 stars)
- Jul 1997: Major general (1 star)

⁹⁶ Information on the 20th Group Army and 60th Division were found at <http://baike.soso.com/v56555622.htm> and “20th Corps of the CPLA (中国人民解放军第 20 军),” *China’s Military Encyclopedia’s* (Second Version) *PLA Military History*, Vol 2, p. 443-444.

Appendix 3: Defense Minister Travel Abroad 2003-2012

This appendix provides a list of the countries China's Defense Ministers visited from 2003 through August 2012. Altogether, the two Ministers of Defense (Generals Cao Gangchuan and Liang Guanglie) took 29 trips to 50 different countries, averaging two to four trips per year and one to five countries per trip. They visited 13 countries twice and four countries three times.⁹⁷ Some of those visits were to participate in the various Defense Ministers' Conferences.⁹⁸

- May 2003: Russia (SCO Defense Ministers' Conference)⁹⁹
- Oct 2003: United States
- Dec 2003: Russia
- Mar 2004: Pakistan, India, and Thailand
- Oct 2004: France, Belgium, Switzerland, and Belgium
- Apr 2005: Egypt, Tanzania, Netherlands, and Denmark
- Sep 2005: Russia
- Sep 2005: Tajikistan and Kazakhstan
- Apr 2006: North Korea, Vietnam, Malaysia, Singapore, and South Korea
- Sep 2006: Bulgaria, Hungary, Romania, and Belarus
- May 2007: Cuba, Argentina, Chile, Greece, and Switzerland
- Jun 2007: Kirghizstan (SCO Defense Ministers' Conference)
- Aug-Sep 2007: Japan and the Philippines
- Dec 2007: Kenya, Kuwait, and Thailand
- Jan 2008: Brunei, Indonesia, and Saudi Arabia
- May 2008: Tajikistan (SCO Defense Ministers' Conference)
- Sep 2008: Italy, Germany, Belarus, and Hungary
- Nov 2008: United Arab Emirates, Oman, Bahrain, and Qatar
- Sep 2009: Slovakia, Serbia, and Bulgaria
- Nov 2009: Japan
- May 2010: Pakistan, Turkmenistan, Kazakhstan
- Aug 2010: Mexico, Columbia, and Brazil
- Oct 2010: Vietnam (ASEAN Defense Ministers' Meeting)
- Mar 2011: Kazakhstan (SCO Defense Ministers' Meeting), Uzbekistan
- May-Jun 2011: Singapore (Shangri-La Dialogue), Indonesia, and the Philippines
- Nov 2011: Visit to Ghana, Uganda, and the Seychelles

⁹⁷ The 13 countries visited twice include Belarus, Belgium, Bulgaria, Hungary, India, Japan, Kazakhstan, Pakistan, Switzerland, Tajikistan (includes one SCO Defense Ministers' Conference), Thailand, the United States, and Vietnam (includes one ASEAN Defense Ministers' Meeting). The four countries visited three times include Indonesia, the Philippines, Singapore (includes one Shangri-La Dialogue), and Russia (includes one x SCO Defense Ministers' Conference).

⁹⁸ The information for 2008 through 2011 came from individual volumes of Qu Xing, ed., *International Situation and China's Foreign Affairs*, (Beijing: Shijie Zhishi Chubanshe). Each volume has a separate section on PLA foreign diplomacy. Zhang Zhe, "Liang Guanglie Visits the Three Countries in America and Europe," *PLA Pictorial*, Issue 2, June 2012, p. 4-5. Zhang Zhe, "Liang Guanglie Visits Cambodia for ASEAN Defense Ministers' Conference," and Zhang Zhe, "Chen Bingde Visits Three Central Asian Countries," *PLA Pictorial*, Issue 1, July 2012, p. 32-36. Wu Xiaoyi, Guo Hngtao, and Li Xiaowei, "Xu Caihou Visits Mongolia," *PLA Pictorial*, Issue 2, June 2012, p. 4-7.

⁹⁹ No SCO Defense Ministers' Conferences were held in 2004 and 2005.

- May 2012: United States, Poland, and Latvia
- July 2012: Cambodia (ASEAN Defense Ministers Meeting)
- Sept 2012: India, Sri Lanka, and Laos.¹⁰⁰

¹⁰⁰ “India and China to Hold Joint Military Exercises,” accessed at www.bbc.co.uk/news/world-asia-india-19473365#story_continues_1. Liang’s visit was the first to India by a defense minister in eight years. China and India began holding combined exercises in 2007, but they were put on hold after 2008 following a series of diplomatic disagreements over visa issues. “Liang Guanglie Visits Three Asian Countries,” *PLA Pictorial*, 2012-10, Top Half of the Month, p. 16-17.

Appendix 4: Comparison of Activities by Defense Ministers Chi Haotian, Cao Gangchuan, and Liang Guanglie for One Year

This appendix provides information for activities by Defense Ministers Chi Haotian (2001), Cao Gangchuan (2006), and Liang Guanglie (2011) during the calendar year prior the Party Congress when their replacement was selected. Even though their replacements were selected during the Party Congress, they did not step down until the following year's National People's Congress (NPC) when the remaining State Council leaders assumed their new positions.

The data in Table 3, which was taken from a review of *PLA Daily* articles during the appropriate year, includes the number of articles about the Defense Minister, the number of foreign visits (访问) made and the number of countries visited, the number of hosted visits and talks (会谈) for defense minister counterparts, and the number of meetings (会见) held for other foreign military and key government officials.¹⁰¹

Table 3: Defense Minister Comparisons

Defense Minister	Year	PLA Daily Articles	Foreign Visits	Countries Visited	Hosted Talks with Defense Ministers	Meetings with Foreign Delegations
Chi Haotian	2001	254	2	10	19	67
Cao Gangchuan	2006	201	2	9	16	38
Liang Guanglie	2011	128	3	7	15	24

Although the exact reason for the difference in the number of articles and meetings with foreign delegations for the three Defense Ministers is not clear, the most logical explanation is that Chi and Cao served not only as the Defense Minister but concurrently as a CMC Vice Chairman and Politburo Member. As a result, they most likely had greater responsibilities for meeting foreign delegation that Liang has had while serving only as the Defense Minister and CMC Member. Even so, all of them still only travelled abroad an average of two to three times per year.

The following three sections provide information for Chi, Cao, and Liang. While the non-hosted meetings listed for Chi and Cao merely identify them as a delegation for a certain country, the information for Liang identifies the leader of the delegation. In addition, the data for Liang includes his other activities (座谈会) during 2011, which most likely equates to the same types of meetings that Chi and Cao participated in. The extra meetings can be organized into the following categories:

- Attended conferences or meetings as one of many leaders where Hu Jintao and/or Wen Jiabao spoke
- Participated in conferences or meetings and presented a speech
- Attended Party functions, including Party Congresses at various levels
- Participated in National Defense Mobilization Conferences and gave a speech

¹⁰¹ The source is East View Press' *PLA Daily* database.

- Attended National People's Congress functions

Chi Haotian Activities in 2001

PLA Daily articles: 254

Travel Abroad: 2 trips to 10 countries

Feb 2001: Vietnam, Laos, Cambodia, Thailand, and Nepal

Aug-Sep 2001: Colombia, Venezuela, Trinidad and Tobago, Cote d'Ivoire, and Nigeria

Hosted Visits and Talks with Defense Minister Counterparts: 19

- | | |
|----------------------------|------------------------------|
| • Jan 2001: Philippines | • Jun 2001: Guinea |
| • Mar 2001: Australia | • Jun 2001: Thailand |
| • Apr 2001: Czech Republic | • Jul 2001: Papua New Guinea |
| • Apr 2001: Gabon | • Oct 2001: Croatia |
| • Apr 2001: Brazil | • Oct 2001: Armenia |
| • Apr 2001: Suriname | • Nov 2001: New Zealand |
| • May 2001: Hungary | • Nov 2001: Yugoslavia |
| • May 2001: Mali | • Dec 2001: South Korea |
| • Jun 2001: Morocco | • Dec 2001: Holland |
| • Jun 2001: Mongolia | |

Meetings Held For Other Foreign Military and Key Government Officials: 67

- | | |
|---------------------------------------|-------------------------------------|
| • Mar 2001: United State delegation | • Jun 2001: Pakistan delegation |
| • Mar 2001: South Korea delegation | • Jun 2001: Malta delegation |
| • Mar 2001: Nepal delegation | • Jun 2001: Britain delegation |
| • Mar 2001: South Korea delegation | • Jun 2001: Cuba delegation |
| • Apr 2001: Thailand delegation | • Jun 2001: Morocco delegation |
| • Apr 2001: Qatar delegation | • Jul 2001: Pakistan delegation |
| • Apr 2001: Austria delegation | • Jul 2001: Nigeria delegation |
| • Apr 2001: Russia delegation | • Jul 2001: Georgia delegation |
| • Apr 2001: Lebanon delegation | • Jul 2001: Bangladesh delegation |
| • Apr 2001: France delegation | • Jul 2001: Colombia delegation |
| • Apr 2001: Thailand delegation | • Aug 2001: United State delegation |
| • May 2001: India delegation | • Aug 2001: Ecuador delegation |
| • May 2001: Japan delegation | • Aug 2001: Zambia delegation |
| • May 2001: Russia delegation | • Aug 2001: South Africa Delegation |
| • May 2001: Canada delegation | • Aug 2001: Uruguay delegation |
| • May 2001: Malaysia delegation | • Aug 2001: Romania delegation |
| • May 2001: Thailand delegation | • Sep 2001: Myanmar delegation |
| • May 2001: Tonga delegation | • Sep 2001: New Zealand delegation |
| • May 2001: Venezuela delegation | • Sep 2001: Italy delegation |
| • May 2001: Hungary delegation | • Oct 2001: Chile delegation |
| • May 2001: Venezuela delegation | • Oct 2001: Guyana delegation |
| • Jun 2001: Zimbabwe delegation | • Oct 2001: Vietnam delegation |
| • Jun 2001: Cuba delegation | • Oct 2001: South Africa delegation |
| • Jun 2001: Turkey delegation | • Oct 2001: Russia delegation |
| • Jun 2001: Colombia Defense Minister | • Oct 2001: Britain delegation |

- Oct 2001: Singapore delegation
- Oct 2001: Uruguay delegation
- Oct 2001: Australia delegation
- Nov 2001: Tunisia delegation
- Nov 2001: Nepal delegation
- Nov 2001: Bolivia delegation
- Nov 2001: Maldives delegation
- Nov 2001: Turkey delegation
- Nov 2001: Guinea-Bissau delegation
- Nov 2001: North Korea delegation
- Nov 2001: Cambodia delegation
- Dec 2001: Romania delegation
- Dec 2001: South Africa Defense Minister
- Dec 2001: Belorussia delegation
- Dec 2001: Pakistan delegation
- Dec 2001: Laos delegation
- Dec 2001: Russia delegation

Cao Gangchuan Activities in 2006

PLA Daily Articles: 201

Travel Abroad: 2 trips to 9 countries

- Sep 2006: Bulgaria, Romania, Hungary, and Belorussia
- Apr 2006: North Korea, South Korea, Malaysia, Singapore, and Vietnam

Hosted Visits and Talks with Defense Minister Counterparts: 16

- Jan 2006: Portugal
- Feb 2006: East Timor
- Feb 2006: Switzerland
- Mar 2006: Rwanda
- Mar 2006: Ecuador
- Apr 2006: Sudan
- May 2006: India
- May 2006: Burundi
- May 2006: Eretria
- Aug 2006: Kenya
- Aug 2006: Bolivia
- Sep 2006: Gabon
- Sep 2006: Libya
- Oct 2006: Estonia
- Nov 2006: New Zealand
- Nov 2006: Afghanistan

Meetings Held For Other Foreign Military and Key Government Officials: 38

- Jan 2006: U.S. delegation
- Jan 2006: Thailand delegation
- Jan 2006: U.S. delegation
- Feb 2006: Thailand delegation
- Feb 2006: Pakistan delegation
- Mar 2006: Kirghizstan delegation
- Mar 2006: Senegal delegation
- Mar 2006: Brazil Vice President and concurrent Defense Minister
- Apr 2006: Singapore delegation
- Apr 2006: Malaysia delegation
- Apr 2006: Russia Vice Premier and concurrent Defense Minister
- Apr 2006: Uzbekistan, Kazakhstan, and Kirghizstan Defense Ministers (during SCO Defense Ministers' Meeting)
- May 2006: U.S. delegation
- May 2006: Philippines delegation
- May 2006: Thailand delegation
- May 2006: Hungary delegation
- May 2006: Spain delegation
- May 2006: Pakistan delegation
- May 2006: Bangladesh delegation
- May 2006: Malaysia delegation
- May 2006: United Nations Nuclear Safety Commission delegation
- Jun 2006: Qatar delegation
- Jun 2006: Afghanistan delegation
- Jul 2006: Switzerland delegation
- Jul 2006: Singapore delegation
- Aug 2006: South Korea delegation
- Sep 2006: South Africa delegation
- Sep 2006: North Korea delegation
- Oct 2006: Germany delegation
- Oct 2006: Vietnam delegation
- Oct 2006: New Zealand delegation
- Oct 2006: Philippines delegation

- Oct 2006: Kenya delegation
- Oct 2006: Australia delegation
- Nov 2006: Sweden delegation
- Nov 2006: Slovakia delegation
- Nov 2006: Benin delegation
- Dec 2006: Latvia delegation

Liang Guanglie Meetings in 2011

PLA Daily Articles: 128

Travel Abroad: 3 trips to 8 countries

- Mar 2011: Attended SCO Defense Ministers' Meeting in Kazakhstan followed by a trip to Uzbekistan
- May-Jun 2011: Singapore for Shangri-La Dialogue, and visits to Indonesia and the Philippines
- Nov. 2011: Visit to Ghana, Uganda, and the Seychelles

Hosted Visits and Talks with Defense Minister Counterparts: 15

- Jan 2011: United States
- Apr 2011: Cameroon
- May 2011: Peru
- May 2011: Indonesia
- Jun 2011: Chile
- Jun 2011: Israel
- Jun 2011: Cambodia
- Jun 2011: Slovenia
- Jul 2011: Switzerland
- July 2011: South Korea
- Oct 2011: Vietnam
- Oct 2011: Montenegro
- Oct 2011: Burundi
- Oct 2011: Gabon
- Oct 2011: Laos

Meetings Held For Other Foreign Military and Key Government Officials: 24

- Jan 2011: Sierra Leone Defense Minister
- Jan 2011: Britain Army Chief of Staff
- Jan 2011: Tajikistan Defense Minister
- Feb 2011: Indonesia Vice Defense Minister
- Feb 2011: Pakistan Chairman of the Joint Chiefs of Staff
- Feb 2011: Kazakhstan Defense Minister
- Mar 2011: Italy Army Chief of Staff
- Apr 2011: Zambia Army Commander
- May 2011: Serbia Army Commander
- Jun 2011: Separate meetings with Russian First Deputy Premier, New Zealand Defense Minister, South Korean Defense Minister, Japanese Defense Minister, and U.S. Deputy Secretary of State
- Jun 2011: Separate meetings with Australian, Mongolian, and British Defense Ministers
- Jun 2011: Peru Navy Commander
- Jun 2011: Japan delegation
- Jun 2011: Tanzania People's Defense Force Commander
- Jun 2011: Portugal Army Chief of Staff
- Jun 2011: Greece National Defense Chief of Staff
- Jul 2011: Romania Navy Chief of Staff
- Jul 2011: U.S. Chairman of the Joint Chiefs of Staff, Admiral Mike Mullen
- Jul 2011: British Navy Chief of Staff
- Aug 2011: Vietnam Vice Defense Minister
- Aug 2011: North Korea People's Army Logistics Delegation
- Sep 2011: Bangladesh Army Chief of Staff
- Oct 2011: Namibia Defense Minister
- Oct 2011: European Union High Representative for Foreign and Security Policy

Other Meetings: 42

- Jan. 2011: National Defense Education Symposium in Tianjin. Liang co-chaired the meeting
- Jan. 2011: MND-hosted Spring Festival Reception
- Jan. 2011: Spring Civil-Military Literary Event with all other senior CCP and State leaders
- Jan 2011: Visits troops during Spring Festival
- Feb 2011: Spring Festival Reception hosted by Hu Jintao
- Feb 2011: State Council Meeting where Wen Jiabao discussed the 12th Five-Year Plan
- Feb 2011: Lantern Festival hosted by Hu Jintao
- Feb 2011: Social Management Innovation Symposium where Hu Jintao spoke
- Feb 2011: Speaker at the 2010 National Defense Mobilization Personnel Award Ceremony
- Mar 2011: New China Military Diplomatic History Museum Dedication Ceremony. Liang attended.
- Mar 2011: First session of the Fourth Session of the Eleventh National Committee of the Chinese People's Political Consultative Conference. Liang attended.
- Mar 2011: Meetings with Military Members of the National People's Congress
- Mar 2011: Closing meeting of the Fourth Session of the Eleventh CPPCC National Committee. Attended the meeting.
- Mar 2011: Fourth Session of the Eleventh National People's Congress. Attended.
- Mar 2011: 11th Five-Year Plan Science and Technology Exhibition. Attended where Hu Jintao spoke.
- Mar 2011: Attend cremation of former Party member
- Mar 2011: PLA NPC Delegation held its Second Session
- Apr 2011: Tree planting ceremony
- Apr 2011: Spoke at militia work symposium in Chengdu
- Apr 2011: People's Armed Forces Department Meeting in Shandong
- May 2011: Attend cremation of former Party member
- Jul 2011: Meeting with outstanding PLA Party members
- Jul 2011: Attended the 21st Session of the 11th NPC Standing Committee as an observer and gave a speech
- Jul 2011: Attended Central Water Conservancy Work Conference in Beijing
- Jul 2011: Attended People's Armed Police Forces' Second Party Congress
- Jul 2011: Attended 16th All-Army Academic Institution Conference
- Jul 2011: Attended 3-star Promotion Ceremony
- Jul 2011: Visited several cities in Northeast China to provide speeches on militia work
- Aug 2011: Attended PLA Anniversary Reception hosted by MND and gave the main toast
- Aug 2011: Attended ceremony formally establishing MND website
- Aug 2011: Attended and spoke at Beijing MR's 6th National Defense Mobilization Conference
- Aug 2011: Attended the 22nd Session of the 11th NPC Standing Committee as an observer
- Sep 2011: Attended Jinan MR 7th Mobilization Conference and gave a speech

- Sep 2011: Attended All-Army Military Operations Other Than War (MOOTW) Symposium and gave a speech
- Sep 2011: Attended and gave a speech at a ceremony to honor PLA athletes who participated in the Fifth World Military Games
- Sep 2011: Attended Lanzhou MR Mobilization Conference to discuss militia and reserve issues
- Sep 2011: Attended and gave a speech at the Guangzhou MR Defense Mobilization Committee's 8th Plenary Session
- Oct 2011: Attended 62nd Anniversary of the Founding of the PRC
- Oct 2011: Attended China-Vietnam Comprehensive Strategic Partnership Meeting between Hu Jintao and Vietnamese counterpart
- Nov 2011: Attended launch of Shenzhou 8 at launch site
- Nov 2011: Attended and spoke at Guangzhou MR and Chengdu MR National Mobilization Committee Conferences
- Nov 2011: Attended Seventh Party Congress of the Academy of Military Science, where Hu Jintao spoke

Chapter Four: The Chinese People's Liberation Army General Staff Department: Evolving Organization and Missions

Mark A. Stokes and Ian Easton

Introduction

The Chinese People's Liberation Army (PLA) is transforming into a modern military force capable of an increasingly diverse set of missions further from its shores. The General Staff Department (GSD/总参某部/总参), which was created in March 1931, is the heart of the PLA and driver of its future. GSD develops policies, plans, and programs, establishes requirements, and allocates resources to support the PLA mission to defend the interests of the Chinese Communist Party (CCP). The GSD is responsible for day to day joint operations, intelligence, strategic planning and operational requirements, training, and mobilization. In addition to its role in military diplomacy and security of senior party and state leadership, GSD concurrently functions as Army headquarters.¹

GSD encompasses a large, complex bureaucracy consisting of a General Office and at least 12 second-level departments (部). Like the three other General Departments, GSD's second-level departments and their directors are corps leader grade (正军职). Unlike the three other General Departments, however, some of the third-level bureaus (局) and their directors are corps deputy leader grade (副军职).

Over the last decade, GSD's organizational structure has remained relatively stable with some exceptions. The most significant changes include establishment of a new department for strategic planning, and greater emphasis on informatization and joint training. GSD also has increased its role in computer network operations (CNO) and space operations. The relationship between Service Arms and Training Departments has been uncertain over the years. Although unconfirmed, GSD may be in the midst of managing a PLA reorganization, including standing up an independent Army general headquarters and military region (MR) realignment.²

¹ For example, former Deputy Chief of the General Staff General Ma Xiaotian was a central player in the U.S. military-to-military relationship, and has the portfolio for Sino-Indian military-to-military relations. He also was a member of the Taiwan Affairs Leading Small Group. Ma Xiaotian traveled to India in December 2008 and December 2011 to represent the PLA at the second and fourth annual Sino-Indian defense dialogues. He also hosted Indian Defense Secretary Shri Pradeep Kumar in Beijing during the third annual Sino-Indian defense dialogues in January 2010. See "India China Bilateral Defence Cooperation in 2010-11," *Embassy of India in Beijing*, at www.indianembassy.org.cn/DynamicContent.aspx?MenuId=5&SubMenuId=0.

² The last major reorganization of military regions took place in 1985. The establishment of the Fuzhou Military Region was ordered on 22 April 1956, with formal ceremony conducted on 1 July 1956. Consisted of Fujian and Jiangxi Military Districts, with officers of the Fuzhou Military District assuming command. Ye Fei was commander and PC. In June 1985, the MR was absorbed into the Nanjing Military Region. See the Introduction chapter of the 2002 version of the PLA as Organization for a history of the MRs.

Building upon previous published research, this chapter examines GSD roles and organization.³ It first examines GSD’s role within the CCP, Central Military Commission (CMC), and PLA, then surveys current leadership. The chapter then outlines GSD’s organizational structure, and examines its function in overseeing PLA transformation. The following table provides information about the grades and ranks for organizations and personnel discussed within this chapter (see the Introduction Chapter for further information).

Table 1: GSD Grade and Rank Structure

Grade	GSD (Ranks)
CMC Member (军委委员)	Chief of the General Staff (GEN)
MR Leader (正大军区职)	Deputy Chiefs of the General Staff (GEN/LTG)
MR Deputy Leader (副大军区职)	Assistants to the Chief of the General Staff (LTG/MG)
Corps Leader (正军职)	2 nd -Level Departments and Directors (MG/LTG)
Corps Deputy Leader (副军职)	2 nd -Level Department Deputies (MG/SCOL) Some 3 rd -Level Bureaus and Directors
Division Leader (正师职)	3 rd -Level Departments/Bureaus and Directors (SCOL/MG) Some 3 rd -Level Bureau Deputies
Division Deputy Leader (副师职)	3 rd -Level Department/Bureau Deputies

Leadership

GSD’s leadership includes the Chief of the General Staff (COGS/总参谋长), Deputy Chiefs of the General Staff (DCOGS), General Office Director, and Assistants to the COGS. At the pinnacle of the GSD hierarchy is the Chief of the General Staff, a position that separates the department from sister entities while the General Political Department (GPD) is led by a director, the General Logistics Department (GLD) and General Armament Department (GAD) each have a director and political commissar. Among the first-level departments, GSD is well represented within the CCP Central Committee.⁴

³ David Finklestein, “The General Staff Department of the Chinese People’s Liberation Army: Organization, Roles, and Missions,” in James C. Mulvenon and Andrew N. D. Yang, *The People’s Liberation Army as Organization: Reference Volume v1.0*, (Santa Monica, CA, RAND Corporation, 2004), p. 122-222; John Wilson Lewis and Xue Litai, *Imagined Enemies: China Prepares for Uncertain War*, Palo Alto, CA: Stanford University Press, 2006. Also see Dennis J. Blasko, *The Chinese Army Today: Tradition and Transformation for the 21st Century*, London and New York: Routledge, 2006.

⁴ Prior to the recent Party Congress, full members included Chen Bingde, Zhang Qinsheng, and Ma Xiaotian; alternates were Sun Jianguo, Wei Fenghe, Cai Yingting, and Chen Zuoning. The latter is a senior researcher from the Third Department 56th Research Institute. Zhang Qinsheng and Hou Shusen do not appear to have been elected as members to the 18th Central Committee. Fang Fenghui, Sun Jianguo, Qi Jianguo, and Wang Guanzhong were elected as full members to the 18th Central Committee. Former DCOGS Xu Qiliang and former ACOGS Fan C

Chief of General Staff

The COGS is a CMC member and directs the General Staff Department. Practice has been for a former MR commander to serve in the position.⁵ As of the 18th Party Congress in November 2012, the PLA has had 14 Chiefs of the General Staff since the People's Republic of China (PRC) was founded in 1949, as shown below:

- Xu Xiangqian (徐向前): 1949-1954
- Su Yu (粟裕): 1954-1958
- Huang Kecheng (黄克诚): 1958-1959
- Luo Ruiqing (罗瑞卿): 1959-1966 (concurrently CMC member, standing committee member, CMC Party secretary, vice minister of defense, GSD Part Secretary)
- Yang Chengwu (杨成武): 1966-1968 (concurrently member of CMC Standing Committee and CMC deputy Party Secretary)
- Huang Yongsheng (黄永胜): 1968-1971 (concurrently director of the CMC General Department and CMC member and Politburo member)
- Deng Xiaoping (邓小平): 1975-1980 (concurrently CMC vice chairman)
- Yang Dezhi (杨得志): 1980-1987 (concurrently CMC Party deputy secretary)
- Chi Haotian (迟浩田): 1987-1992
- Zhang Wannian (张万年): 1992-1995
- Fu Quanyou (傅全有): 1995-2002
- Liang Guanglie (梁光烈): 2002-2007
- Chen Bingde (陈炳德): 2007-2012

The current COGS is General Fang Fenghui (房峰辉; b. April 1951), who replaced Chen Bingde in October 2012.⁶ Fang rose through the ranks of the Lanzhou MR's 21st Group Army before serving as Chief of the Staff of the Guangzhou MR in 2003. Assigned to the Beijing MR in 2007 at the age of 56, Fang was the youngest among the seven major military region commanders. Worth noting is that no COGS was assigned to the position subsequent to serving as Deputy Chief of the General Staff. For example, Fang Fenghui's predecessor, Chen Bingde, was appointed as COGS after directing GAD and had previously commanded the Nanjing MR. Liang's predecessor, Fu Qianyou, had directed GLD before his assignment as COGS, and commanded the Chengdu and Lanzhou MRs beforehand. Fu's predecessor, Zhang Wannian, had commanded the Jinan MR before his GSD assignment. As a side note, the COGS has served as a member of the State Informatization Leading Group (SILG) Network and Information Security Working Group (网络与信息安全组), which advises senior leaders on computer network operations policies.⁷

⁵ For an insightful discussion of promotion patterns, see Ken Allen, "Assessing the PLA's Promotion Ladder to CMC Member Based on Grades vs. Ranks – Part 1" *China Brief*, July 22, 2010, and "Assessing the PLA's Promotion Ladder to CMC Member Based on Grades vs. Ranks – Part 2," *China Brief*, August 5, 2010.

⁶ The COGS also serves as the GSD Party Committee Secretary (总参谋部党委书记).

⁷ See Jimmy Goodrich, "Chinese Civilian Cybersecurity: Stakeholders, Strategies, and Policy," in Jon Lindsay (ed), *China and Cybersecurity: Political, Economic, and Strategic Dimensions*, University of California, San Diego Workshop Report, April 2012. The working group has included Li Keqiang, Zhang Dejiang, Liu Yunshan, Ling Jihua, Meng Jianzhu, and Chen Bingde.

Deputy Chiefs of the General Staff

Deputy Chiefs of the General Staff (DCOGS) assist the COGS in managing GSD and supporting the CMC. The number of deputies has changed over the years. There are currently five DCOGSs – four Army and one Navy – as shown in protocol order in Table 2. DCOGSs have a grade equivalent to MR leader. With one exception, all are full members of the Central Committee. Current DCOGSs are as follows, in protocol order:

Each most likely adopts a portfolio and oversight of specific GSD departments and functions. General Zhang Qinsheng has the operations portfolio.⁸ Zhang formerly directed the Operations Department and commanded the Guangzhou MR. Likely having the training portfolio, Admiral Sun Jianguo serves as Director of the PLA Security Committee and Secretary-General of the State National Defense Mobilization Committee (国家国防动员委员会).⁹ Assigned in October 2012, former CMC General Office Director Wang Guanzhong or Qi Jianguo likely has intelligence and foreign policy responsibilities. Newly assigned DCOGS Qi Jianguo had previously commanded the 12th Group Army, directed the GSD Operations Department, and served as Assistant to the COGS (总参谋长助理).¹⁰ A DCOGS also is a member of the Central Committee Leading Group for Taiwan Affairs and Leading Group for National Security. In addition, the position of Assistant to the COGS holds a grade equivalent to an MR deputy leader and often is a stepping stone to assignment as DCOGS or MR Commander.¹¹

⁸ Born in 1948, Zhang Qinsheng joined the PLA in 1968. He also served as Director, Beijing Military Region Training Department; Deputy Director, GSD Training Department; Director, GSD Operations Department, and ACOGS. Zhang serves as Deputy Secretary of the GSD Party Committee (总参谋部党委副书记). Zhang was rumored to have been dismissed in March 2012 for pressing on nationalization of the PLA (军队国家化). Among various sources, see www.gcpnews.com/articles/2012-03-06/C1063_78592.html.

⁹ Chung Wen, “A Major Deployment of High-ranking Officers in the CPC Military (中共军方将领大布局),” *Kuang Chiao Ching*, February 16, 2005, p. 20-23. See also Chen Baocheng, “High Level of General Staff Gets New ‘Four-in-One’ Model in Personnel Reshuffle,” *Nanfang Dushi Bao*, December 31, 2009, p. AA28; and Qian Xiaohu and Li Tang, “Blue Strike-2010’ China-Thailand Joint Exercise Successfully Ends (蓝色突-2010 中泰联训圆满结束),” *PLA Daily*, November 12, 2010, p. 2; and Tao Shelan, “Deputy Chief of the PLA General Staff Meets a Vietnamese National Assembly Delegation To Expound China’s Stand on the South Sea Issue (解放军副总长会见越南国会代表团 阐述南海问题立场),” *Zhongguo Xinwen She*, April 27, 2010. Assigned to his current position in 2009, Sun Jianguo is a career submarine officer and former Navy Chief of Staff. He is a graduate of the Naval Submarine Institute where he studied navigation. He commanded a key oceangoing training voyage of the nuclear submarine Changzheng 3 (Submarine 403) in the winter of 1985 and “set a world record for a nuclear submarine being continuously underway at sea.” As DCOGS, Sun Jianguo visited Thailand in November of 2010 to observe the first training exercise ever conducted by PLAN marines in a foreign country. These events suggest that he is likely to play a key role in planning for contingencies involving territorial disputes in the South China Sea. Admiral Sun Jianguo is a native of Wuqiao, Hebei, and elected as a full member of the 18th Central Committee in November 2012.

¹⁰ From Jiangxi’s Xingguo, Qi Jianguo spent much of his career in the armored academy and Army Command Academy in Shijiazhuang and Nanjing. After commanding the 12th Group Army, Qi Jianguo was assigned as Director, GSD Operations Department in 2005. He was assigned as Assistant Chief of the General Staff in 2009. In November 2012, Qi Jianguo was elected as a full member of the 18th Central Committee. Former Deputy Chiefs of the General Staff Ma Xiaotian (马晓天) and Cai Yingting (蔡英挺) were assigned as Air Force Commander and Nanjing Military Region Commander respectively.

¹¹ The current ACOGS is Major General Chen Yong (陈勇; b. 1952). Newly appointed Politburo CMC member Fan Changlong (范长龙) served as ACOGS before his assignment as Jinan Military Region Commander. Fan served much of his career with the 16th Group Army in Changchun, Jilin Province.

Figure 1: Deputy Chiefs of the General Staff

Deputy Chiefs of the General Staff				
Zhang Qinsheng 章沁生	Sun Jianguo 孙建国	Hou Shusen ¹² 侯树森	Wang Guanzhong 王冠中	Qi Jianguo 戚建国
				
b. 1948	b. 1952	b. 1950	b. 1952	b. 1952

Staff Organization

GSD consists of a General Office, Political Department, and a number of functional second- and third-level departments and bureaus. GSD second-level department directors have grades equivalent to a corps leader and third-level department leaders, including bureau directors, have grades equivalent to corps deputy leader or division leader.¹³

The CCP guarantees absolute control over the military through its political work system. The GSD Political Department manages GSD Party Committee functions, and ensures discipline and personnel security among other functions.¹⁴ A number of second level departments, such as the Intelligence, Technical, Informatization, and Army Aviation Departments, have Political Commissars in addition to a Political Department, implying the broad scope of that department.

Figure 2: GSD Organizational Structure



¹² Born in 1950, Hou Shusen has a logistics background and was formerly Shenyang Military Region commander. A Jilin University graduate, General Hou has spent most of his career in the Shenyang Military Region. In 2009 he became DCOGS.

¹³ Department (部门) is a generic term for department, bureau, division, office, or branch.

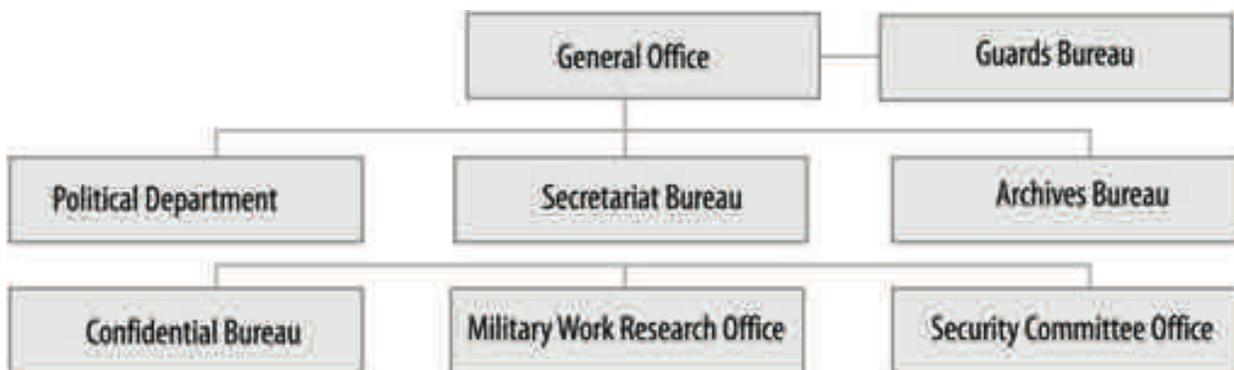
¹⁴ As of mid-2012, Major General Geng Liaoyuan (耿燎原) directed the GSD Political Department. Born in 1954, Major General Geng had previously directed the GSD Communications Department Political Department and Political Commissar of the PLA Information Engineering University (解放军信息工程大学). Major General Cheng Jian (程坚) serves as Deputy Director.

On behalf of the Ministry of National Defense, GSD also manages the Foreign Affairs Office (外事办公室), a corps leader-grade second-level department under the purview of a Deputy Chief of the General Staff that is responsible for military diplomacy, arms control, and military assistance.¹⁵ Worth noting is the Army's dominance and the significant presence of the political system through the organization. Each second-level department is discussed below in their protocol order.

GSD General Office

The GSD General Office (总参办公厅) is a powerful organization that functions as the executive staff for the COGS, DCOGS, and ACOGS.¹⁶ As a corps leader organization, the General Office controls access to the leadership, manages GSD communications and documents, processes administrative actions, ensures secure communications, and coordinates internal GSD meetings, and as well as with other PLA departments, MRs, and civilian authorities. The General Office's Political Department (总参办公厅政治部) manages internal political activities, and the General Office's Secretariat Bureau (总参办公厅秘书局) oversees executive support to senior GSD leaders.

Figure 3: GSD General Office



At least three General Office entities have security-related functions. The PLA Security Committee (解放军保密委员会) and standing Security Committee Office are responsible for

¹⁵ For example, the Foreign Affairs Office would be responsible for planning COGS visits overseas. The last Chief of General Staff visit to the United States took place 15-22 May 2011. Chen Bingde visited at the invitation of the Chairman of the Joint Chiefs of Staff. Other members of his entourage included General Zhang Haiyang (Second Artillery Political Commissar), General Qi Jianguo, General Zheng Qin (Deputy Commander, Guangzhou MR), General Su Zhiqian (Commander of the East China Sea Fleet), General Zhang Jianping (Jinan MR Air Force Commander), General Yang Hui (Nanjing MR Chief of Staff), and General Guan Youfei. In addition to meetings in Wash DC, Chen toured Norfolk Naval Base in Virginia, Fort Stewart in Georgia, Nellis Air Force Base and the US Army's National Training Center.

¹⁶ Born in 1957, Major General Ji Wenming (吉文明) was appointed as Director, GSD General Office in 2011. He spent his early career in the 46th Group Army. He formerly served as Deputy Commander of the 1st Group Army, Director the General Office Military Work Research Office, and Commandant of the Nanjing Military Academy. He replaced Lin Jianxiao (林建超), who previously served as Deputy Director of the GSD Political Department. Deputy Directors are said to include: Qiu Jingping (邱京平); Song Xinbin (宋新斌); Zhang Guohua (张国华); Chang Jinxin (蔺金欣); and Liu Huaiyan (刘怀彦).

developing classification system and safeguarding national secrets.¹⁷ The office oversees a Technology Security Research Institute (技术安全研究所), which is linked with the GSD Technical (Third) Department-managed PLA Information Security Test and Evaluation Center (解放军信息安全测评认证中心).¹⁸ The General Office also manages the PLA Archives Bureau (档案局), which maintains historical records.

Part of a broader system managed by the Central Committee Cryptologic Small Leading Group (党委密码工作领导小组), the GSD Confidential Bureau (总参机要局) is responsible for encryption of senior GSD leader communications and networks.¹⁹ The Chief Engineer, GSD Confidential Bureau is dual hatted as Deputy Director of the Central Committee Cryptologic Working Small Group Office (党委密码工作领导小组办公室). The GSD Confidential Bureau oversees the GSD 51st Research, a division leader entity located in Changxindian that is sometimes referred to as the Northern Institute of Information Technology (北方信息技术研究所).²⁰ The Confidential Bureau may also oversee the GSD Confidential Technology Support Dadui (总参机要技术保障大队).²¹ In addition, the General Office includes a Military Work Research Office (军事工作研究室), a division deputy leader-grade organization that functions as an in-house think tank.²²

The General Office supports the Central Committee General Office Central Guards Bureau, a corps leader grade organization, although its exact relationship remains unclear.²³ The bureau has operational control over the Central Guards Regiment (61889 Unit), consisting of as many as eight groups responsible for security of the CCP and PLA leadership, as well as security of key

¹⁷ GSD General Office Deputy Director Qiu Jingping (邱京平) was appointed director of the Security Committee Office in 2012. Deputy Directors Chang Jinyan (蔺金欣) and Zhang Guohua serve as PLA Secrecy Committee members. Zhang was formerly the GSD Office Classified Archives Bureau (总参办公厅保密档案局局长). Liu Huaiyan (刘怀彦) is also a member of the PLA Secrecy Committee. See “All-Army Classified Electronic Document and Watermark Management System Training Held in Beijing (全军涉密电子文件标签和水印管理系统应用集训在京举办),” China Secrecy On-Line, May 7, 2012, at www.baomi.org/bmyw_info.php?optionid=30&auto_id=1326; and http://chn.chinamil.com.cn/xwpdxw/2011-05/13/content_4435095.htm.

¹⁸ The Technology Security Research Institute may be assigned a cover designator of the 61600 Unit.

¹⁹ In the political structure of China, a leading small group (领导小组) is coordinating body formed to build consensus on issues that cut across the government, party, and military systems when the existing bureaucratic structure is unable to do so. Leading groups can be subordinate to the Party or State Council, and members of the leading groups developing policy recommendations for the Politburo and State Council. The leading groups are viewed as powerful in they represent consensus of relevant government, party, and military representatives. The leading groups rely on standing offices to manage daily operations and for research and policy recommendations. The party leading groups in particular can ensure party authority over state entities. He Liangsheng (何良生) is Chief Engineer, GSD Confidential Bureau and Deputy Director, Central Committee General Office Crypto Management Office. He is one of a number of GSD Technical Department (Third Department) cryptologic engineers supporting national level leaders in information security. The GSD Confidential Bureau is probably also known as the PLA Cryptologic Management Bureau (解放军密码管理局).

²⁰ <http://military.people.com.cn/GB/6360932.html>. 总参谋部办公厅机要局第 51 研究所总工程师孔志印; 总参谋部办公厅机要局第 51 研究所(北京市丰台区长辛店镇朱家坟村五里三号院). Its PO Box is 北京市 7227 信箱 2 分箱北方信息技术研究所

²¹ The GSD Confidential Technology Support Group may also be known as the 61840 Unit.

²² Wang Xuhe (汪徐和) may be the Research Office Director.

²³ As of early 2012, Guards Bureau Director is MG Cao Qing (曹清).

facilities, such as Zhongnanhai, National People's Congress, Yuquanshan, and Beidaihe. Other groups are responsible for special operations, training, and engineering.²⁴

The General Office also supports the administrative management of academic institutions, such as the PLA University of Science and Technology (PLAUST/中国人民解放军理工大学). Based in Nanjing, the university integrates a number of educational and research enterprises under GSD management. In addition to meteorology, the university also hosts the 63rd Research Institute, a corps deputy leader-grade equivalent R&D entity that focuses on electronic counter-countermeasures (ECCM), including counter-communications jamming and frequency spectrum management technology development.²⁵

GSD Operations Department

First in protocol order, the GSD Operations Department (总参作战部), which is also known as the First Department (总参一部), is responsible for current military operations, including management of the PLA Joint Operations Command Center, airspace surveillance and air traffic control (ATC), border defense, and survey and mapping, hydrological, and meteorological support to current operations.²⁶ As a rough counterpart to the U.S. Joint Staff J-3, the GSD Operations Department is managed by a director and five deputy directors (three Army, one Air Force, and one Navy).²⁷ The Operations Department's Political Department (政治部) is responsible for internal political work. The Comprehensive Bureau (综合局) is responsible for overall integrated force planning.

The Operations Department also manages a number of contingency planning and real time emergency management functions. In addition to functioning as the National Joint Operational Command Center, the Joint Operations Command Bureau (联合作战指挥局) theoretically would coordinate with Joint Theater Command in a crisis situation. The GSD Command Center is under Baiwangshan (百望山) in the Western Hills, and is said to oversee an operational targeting center (作战目标中心; or 目标控制中心).²⁸ The Operations Department's Emergency

²⁴ Wang Qingren (王庆任) serves as deputy director. See http://gxb.gxnews.com.cn/html/2012-04/04/content_666666.htm. The Central Guards Regiment may consist of as many as 8,000 soldiers. The First Dadui is supposedly responsible for Zhongnanhai; Second Dadui for Great Hall of the People; Third for Xinliusuo (新六所); Fourth Group for Yuquan Mountain; Fifth Dadui for Beidaihe; and Sixth Group for Special Operations (66284 Unit); Seventh Dadui for training; and Eighth Dadui for engineering.

²⁵ www.chinamil.com.cn/site1/xwpdxw/2008-12/09/content_1577227.htm

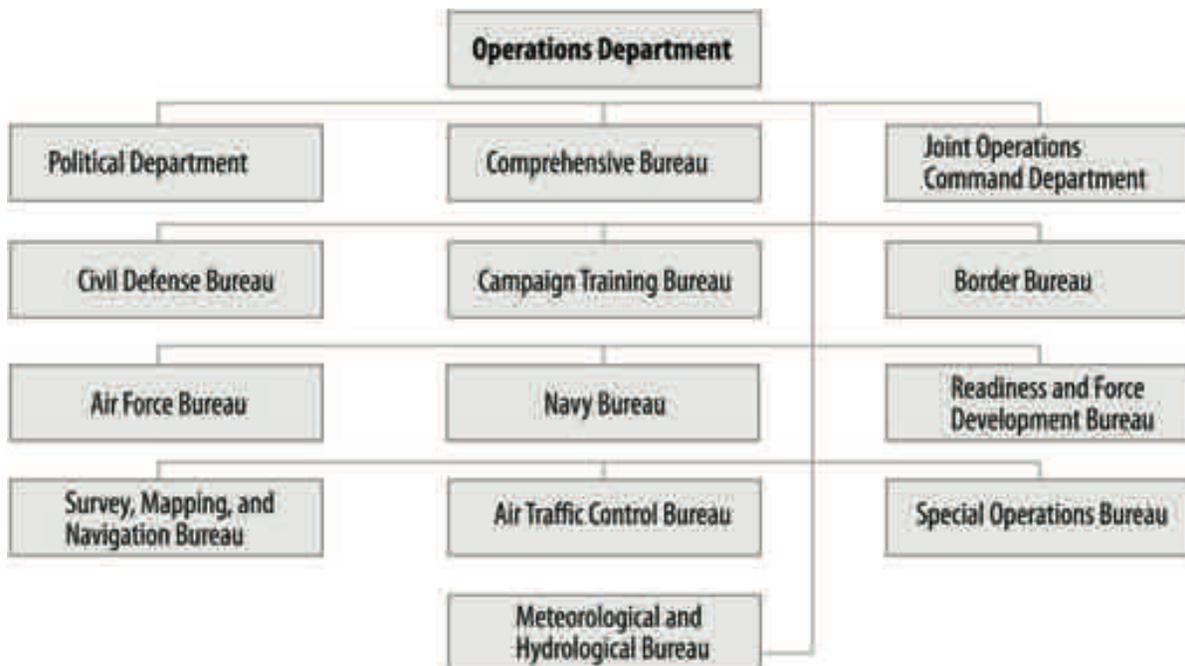
²⁶ The Operations Department may have been previously referred to as the CMC First Bureau (中央军委一局). In May 2009, former 20th Group Army Commander Major General Bai Jianjun (白建军) replaced Qi Jianguo as Director, GSD Operations Department.

²⁷ Deputy Directors include Major General Jia Jiancheng (贾建成); Major General Meng Guoping (孟国平); Major General Wang Kebin (王克斌); Senior Colonel Qu Rui (曲睿); and Rear Admiral Kan Likui (阚立奎). The latter formerly directed the GSD Operations Department Navy Bureau. He appears to have replaced Senior Colonel Jiang Guoning (姜国宁), who formerly served as a senior Navy submarine officer and possibly in a staff position within the CMC General Office. Born in 1958, Major General Meng Guoping formerly directed the GSD Operations Department Air Force Bureau. See, for example, <http://gansu.gansudaily.com.cn/system/2011/12/29/012332097.shtml>; and <http://news.lanzhou.cn/system/2011/12/30/010067438.shtml>.

²⁸ See Lewis and Hua, p. 124. The Command Center may be the 61683 Unit. Before his assignment as GSD Operations Department Deputy Director in 2009, Major General Wang Kebin managed the Joint Operations Command Bureau.

Response Office (应急办), or Emergency Response Bureau (应急局), is a deputy corps leader organization that coordinates with civilian natural disaster warning, response, and recovery organizations.²⁹ The Operations Department oversaw a Strategic Planning Bureau (战略规划局) until it morphed into a separate GSD second-level department in 2010.

Figure 4: GSD Operations Department



The Operations Department’s Border Bureau (边防局) establishes policies and planning for ensuring the security of the country’s borders of over 22,000 kilometer and coastline of over 18,000 kilometers. The bureau director is dual-hatted as Deputy Director of the State Border Defense Office (国家边海防办).³⁰ The Operations Department’s Civil Defense Bureau (人防局) is responsible for civil air defense and other emergency management functions. One of the Operations Department’s deputy directors and Civil Defense Bureau’s director are dual-hatted as a deputy director of the State Civil Defense Office (国家人防办).³¹ The Operations

²⁹ The Emergency Response Office is directed by Major General Li Haiyang (李海洋), who formerly directed the Lanzhou Military Region Operations Department. See, for example, www.cea.gov.cn/manage/html/8a8587881632fa5c0116674a018300cf/_content/12_04/02/1333344379017.html; and <http://yxj.miit.gov.cn/n11293472/n11295057/n11298523/11956670.html>. Also see “Summary: State Inspection Team Inspects Flood Control, Drought Relief in Hubei,” *Hubei Ribao*, May 28, 2011.

³⁰ As of early 2012, bureau director was Ma Qinglei (马庆雷). Among various references, see www.xlgl.gov.cn/zwxw/zyxw/201109/t20110913_693783.html.

³¹ Liu Qingsen (柳庆森) currently serves as Civil Defense Bureau Director. See, for example, (国家人防办副主任柳庆森视察徐州人防工作), People’s Air Defense Network, March 5, 2012, at www.rmfb.gov.cn/new_news_sanji.aspx?id=18080&cid=32; and www.jzrfb.gov.cn/News_View.asp?NewsID=611.

Department's Campaign Training Bureau (战役训练局) is responsible for establishing operational training requirements.³²

The Operations Department's Readiness and Force Development Bureau (战备建设局) is responsible for a range of planning and security functions, including coordination of dual-use airfields.³³ The Operations Department dispatches joint inspection teams to monitor security of key military facilities. For example, Deputy Director Meng Guoping (孟国平) led one such inspection team across seven provinces to conduct inspections of "underground command projects, military airports, ports, and missile and radar positions." This joint inspection team included participation from a number of CCP government entities including the Public Security Bureau and the Ministry of State Security.³⁴ The Operations Department's Enterprise Management Bureau (企业管理局) appears to be responsible for land management and other related issues.³⁵

The Operations Department also includes separate Navy and Air Force bureaus that are responsible for service coordination. Among other responsibilities, the Air Force Bureau (空军局) coordinates joint airlift support.³⁶ At least one reference notes a GSD Operations Department Special Operations Bureau (特种作战局), which played a role in providing security for the Beijing Olympics.³⁷ The existence of a bureau responsible for coordination with the Second Artillery remains unconfirmed.³⁸ The Operations Department Air Traffic Control Office Bureau (空管局), which is managed by a PLAAF officer, is responsible for development of air traffic management policies and coordination, and also functions as the State Air Traffic Control Commission Office (国家空中交通管制委员会办公室).³⁹

The Operations Department has at least two anomalies for third-level organizations. Whereas most third-level organizations within the four General Departments are division leader-grade, the Operations Department's Survey, Mapping, and Navigation Bureau (总参测绘导航局) and the

³² See (训练改革热点聚焦：联合训练必须常态化), *PLA Daily*, June 4, 2009, at http://news.mod.gov.cn/forces/2009-06/04/content_3000467_4.htm. Another training-related organization is the GSD Operations Department Campaign Training and Education Bureau (总参作战部战役培训局).

³³ As of early 2012, the Readiness Bureau director is Ma Yifei (马翼飞). See, for example, (马翼飞率国家军事设施保护联合执法检查组来洛检查), *Luoyang Network*, June 21, 2011, at http://news.ly.ha.cn/0379001/20110621/362_345416.shtml.

³⁴ Li Yun, "Overall Nationwide Military Facilities Are Well Protected; Three Issues Cause for Concern," *Xinhua*, July 10, 2011.

³⁵ As of early 2012, bureau director was Senior Colonel Ma Xiaochun (马晓春).

³⁶ www.soa.gov.cn/soa/news/importantnews/webinfo/2011/05/1305507673721940.htm. Air Force Bureau Director is Senior Colonel Qian Zehong (钱泽宏). The Air Force Bureau is associated with a military cover designator of the 61139 Unit.

³⁷ See, for example, "Beijing Olympic and Paralympic Games Transport Service Volunteers Hold Work Summary Meeting (北京奥运会残奥会交通服务志愿者工作总结会召开)," *China Youth League Network*, September 25, 2008, at www.gqt.org.cn/place/news/beijing/200809/t20080925_93705.htm.

³⁸ Some sources, such as Lewis and Xue (p. 120), cite the existence of a Strategic Forces Bureau. They also cite a Regional Bureau that is responsible for deliberate planning on page 121.

³⁹ As of March 2012, the Air Traffic Control Bureau is directed by Sun Hongwei (孙宏伟). See www.cauc.edu.cn/cauc_news/News/Show.asp?id=7403.

Meteorological and Hydrological Bureau (气象水文局) are corps deputy leader-grade organizations as discussed below.

The GSD Operations Department also develops requirements for and manages joint military use of navigation, geodetic, meteorological, and oceanographic space systems. A deputy corps leader-grade organization, the Survey, Mapping, and Navigation Bureau plays a critical role in providing navigation, geographic information systems, and mapping support. It operates the Beidou satellite navigation ground segment, with the Satellite Navigation Control Center (中国卫星定位应用管理中心) based in Xi'an, and oversees a number of survey and mapping units around the country.⁴⁰ The bureau leverages a national satellite laser ranging (SLR) network for precise determination of satellites, a capability critical for ensuring precision of the Beidou navigation satellite system. The bureau also is believed to operate a very long baseline interferometer (VLBI) network of radio telescopes that support China's space tracking system.

The Operations Department's Meteorological and Hydrological Bureau supports the PLA with military weather and oceanographic information. The bureau oversees the GSD Meteorological and Hydrological Space Weather Command (总参气象水文空间天气总站), which supports space missions and has a Maritime Environment Center.⁴¹

GSD Intelligence Department

The GSD Intelligence Department (情报部), which is also known as the Second Department (总参二部) and 2PLA, is roughly analogous to the U.S. Defense Intelligence Agency (DIA) and is responsible for military and political intelligence collection and analysis. Increasingly reliant upon space and airborne intelligence, surveillance, and reconnaissance systems, the Intelligence Department also shares common characteristics of the National Reconnaissance Office (NRO). The Intelligence Department appears to conduct both overt and clandestine intelligence collection, intelligence analysis, and mans a watch center that likely is collocated with the GSD Command Center.⁴² The GSD Intelligence Department appears to play a role in the development

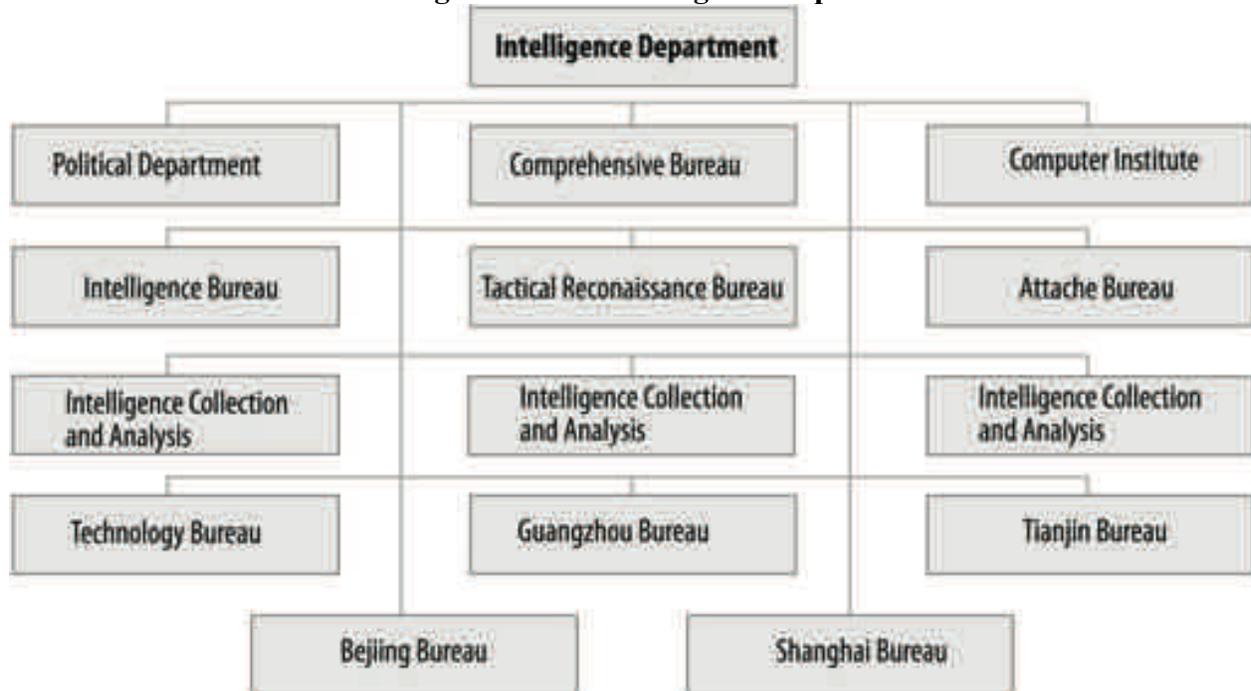
⁴⁰ As of early 2012, the bureau director is Xue Guijiang (薛贵江), who appears to have replaced Yuan Shuyou (袁树友). The bureau is probably located in the Haidian District, 69 North Central Third Ring Road (海淀区北三环中路69号). The 61081 Unit, referred to as a *zongzhan*, is believed to be the cover designator for the Satellite Navigation Application Management Center (中国卫星定位应用管理中心). GSD Survey and Mapping groups include the 61365 Unit (First Survey and Mapping Group); the 61512 Unit (the Fourth Survey and Mapping Group, and the 61363 Unit (Survey and Mapping Information Technology Group, or *zongzhan*); and the 61540 Unit (GSD Survey and Mapping Research Institute in Xi'an); and the 61512 Unit (GSD Survey and Mapping Information Center in Beijing).

⁴¹ The Meteorological and Hydrological Bureau is directed by Li Fulin (李福林). The command has a military cover designator of the 61741 Unit, and is located in Beijing's northern Shangzhuang suburb. The command's Chief Engineer, Wang Yegui (王业桂), directed the weather expert working group for Shenzhou 9 manned space mission. Among various sources, see "Video: PLA GSD Provides Meteorological, Hydrological Support for Shenzhen-8 Return," *CCTV-7*, November 17, 2011. Also see "Weather Conditions Suitable for Shenzhou Landing" (主着陆场气象条件符合神九飞船着陆的要求), *Xinhua*, June 28, 2012, at http://news.xinhuanet.com/mil/2012-06/28/c_123344772.htm; and "GSD Meteorological and Hydrological Bureau Director Major General Lin Fulin," information accessed at www.dashuhua.com/boke/60146860.html.

⁴² The Intelligence Department has been affiliated with a military cover designation of the 61599 Unit. As of October 2012, Major General Chen Youyi (陈友谊) served as Second Department Director, and Yao Liyun (姚立云) as Political Commissar. A Russia and Central Asia specialist, Chen replaced former Director Yang Hui (杨晖), who

of space-based reconnaissance operational requirements and operation of ground receiving stations.

Figure 5: GSD Intelligence Department



Speculative assessments indicate that the Intelligence Department consists of more than 10 third-level departments. In addition to the Intelligence Department’s Political Department (政治部), administrative bureaus are responsible for comprehensive support for the department leadership (综合局), reference (资料局), and archival work (档案局). The Intelligence Department’s Computer Center (计算机所) provides information systems support.⁴³ Functional third-level departments include the Intelligence Bureau (情报局), or GSD Intelligence Department First Bureau, which appears responsible for defense-related HUMINT collection, with special focus on Taiwan.

The Tactical Reconnaissance Bureau (战术侦察局) is responsible for joint airborne reconnaissance operations and dissemination. At least one research entity ostensibly subordinate to the Second Bureau – the 55th Research Institute – supports the Intelligence Department leadership in developing operational and technical requirements for intelligence collection systems, particularly unmanned aerial vehicle (UAV) sensors. The Second Bureau may oversee at least one operational UAV regiment or brigade, based in Beijing’s northern suburb of Shahe.

transferred to serve as Nanjing Military Region Chief of Staff. Former Tianjin Bureau Director Major General Feng Bingsheng (丰炳生) serves as a Deputy Director. See www.chinadaily.com.cn/hqpl/zggc/2012-01-11/content_4931032.html; and Choi Chi-yuk, “Central Asia Expert to Head PLA Intelligence,” *South China Morning Post*, January 12, 2012, at <http://topics.scmp.com/news/china-news-watch/article/Central-Asia-expert-to-head-PLA-intelligence>.

⁴³ The Computer Center is directed by Major General Duan Miyi (段泯毅). See “Active Duty Generals” (现役将军), *Chaling News*, December 5, 2011, at www.clnews.cn/Info.aspx?ModelId=1&Id=796.

The Attaché Bureau (武官局), also referred to as the Third Bureau, manages defense attaché offices within PRC embassies around the world. Three Intelligence Collection and Analysis Bureaus (情报收集分析局) provide analytical support related to the former Soviet Union and Central Asia, North America, and the Asia-Pacific region. (See the Ministry of National Defense chapter for more information on military attachés.)

The Technology Bureau (技术部), also known as the Space Reconnaissance Bureau and the Seventh Bureau, appears responsible for space-based intelligence collection and analysis. Based in the northern Beijing suburb of Qinghe, The bureau's Beijing Institute of Remote Sensing Information (北京遥感信息研究所) appears to be primarily focused on electro-optical (EO) and synthetic aperture radar (SAR) remote sensing operations. The bureau may operate regional remote sensing ground stations. Major cities, such as Beijing, Shanghai, Guangzhou, Tianjin, and Shenyang, have liaison bureaus.

In addition to managing the PLA Institute of International Relations (解放军国际关系学院) and China International Institute for Strategic Studies (CIISS) (中国国际战略研究学会), the Intelligence Department oversees a Peacekeeping Bureau (总参维和局). As noted in the Ministry of National Defense (MND) Chapter, MND created a subordinate Peacekeeping Affairs Office (维和事务办公室) in 2001 to manage peacekeeping operations (PKO). The office, which was identified as the GSD Peacekeeping Office (总参维和办公室) in 2003, has apparently been upgraded to a bureau.⁴⁴ In addition, in 2009, MND established a Peacekeeping Center (维和中心) in Beijing for training international PKO personnel.⁴⁵ The director of the PKO Office and the Peacekeeping Center is one of the deputy directors of the GSD's Intelligence Department, which indicates the office is subordinate to the Second Department and is a corps deputy leader-grade organization.⁴⁶ The office has subordinate organizations (军区维和事务办公室) in at least the following three MRs:

- The Beijing MR, which trains medical personnel for PKO operations.⁴⁷
- The Lanzhou MR, which trains engineers and medical personnel for PKO operations.⁴⁸
- The Jinan MR, which trains engineers, transportation personnel, and medical personnel for PKO operations.⁴⁹ The director of the Jinan MR office is also the director of the Jinan MR Handover Group (济南军区交接组).⁵⁰

⁴⁴ "Chinese Peacekeepers in the African Wilderness Can Surf the Internet," 14 February 2003 at www.cctv.com/news/other/20030214/100287.shtml. "The Second Group of Chinese Peacekeepers in the Sudan Begin Training in Beijing," 31 July 2012 at www.mod.gov.cn/djxw/2012-07/31/content_4388129.htm.

⁴⁵ "China opens 1st peacekeeping training center," Xinhua, 25 June 2009. www.chinadaily.com.cn/china/2009-06/25/content_8324367.htm. "Ministry of National Defense Peacekeeping Center Inaugurated in Beijing's Huairou District," <http://forum.home.news.cn/thread/68174850/1.html>.

⁴⁶ www1.clzg.cn/xinwen/2007-07/30/content_829610_2.htm, <http://go.ourgo.com/Bbs/showtopic-15158.aspx>, and www.mod.gov.cn/djxw/2012-07/05/content_4382945.htm.

⁴⁷ <http://news.qq.com/a/20090222/007495.htm>.

⁴⁸ <http://news.163.com/11/0729/15/7A51SU2600014JB5.html>.

⁴⁹ <http://news.sina.com.cn/o/2007-09-20/060712601700s.shtml>.

⁵⁰ http://chn.chinamil.com.cn/wh/2011-12/12/content_4739389.htm.

It is not clear what the grade for the MR offices are, but the directors are senior colonels and are most likely division leader-grade officers, which implies this is the grade for the offices as well.⁵¹

GSD Technical Department

Roughly analogous to its American counterpart, the National Security Agency (NSA), the GSD Technical Department (技术部), which is also known as the Third Department (总参三部) and 3PLA, oversees a vast infrastructure for monitoring communications traffic from collection sites inside China, possibly from embassies and other facilities abroad, and perhaps from space-based assets in the future.⁵² Faced with its own challenges to communication systems and computer networks, the Technical Department also has responsibility for assuring the security of PLA computer systems to prevent foreign adversaries from gaining access to sensitive information.

With modest origins in the 1930s, the Technical Department was previously known as the CMC Second Bureau and consisted of three entities responsible for collection, translation, and deciphering/encryption.⁵³ These functions are encompassed within the euphemism of “technical reconnaissance” (技术侦察), which is the foundation of “informatized” warfare.⁵⁴ The GSD Technical Department appears to be diversifying its traditional signals intelligence (SIGINT) mission. Cyber surveillance, or computer network exploitation (CNE) in the U.S. lexicon, represents the cutting edge of SIGINT and indications exist that the Third Department may serve as the national executive agent for CNE.⁵⁵ The GSD Technical Department is a reasonable choice to serve as the national PRC authority for cyber surveillance based on its core competency in SIGINT, high performance computing and encryption technical capabilities, and status as China’s largest employer of well-trained linguists.⁵⁶ Computer network operations

⁵¹ The director for the Lanzhou MR Peacekeeping Office is Senior Colonel Zhou Shiliang (周时良), who is a staff officer in the Lanzhou MR Headquarters Department. <http://news.163.com/09/0626/09/5CNNDPQF000120GR.html> and www.baidu.com/s?wd=%22%E5%86%9B%E5%8C%BA%E7%BB%B4%E5%92%8C%E4%BA%8B%E5%8A%A1%E5%8A%9E%E5%85%AC%E5%AE%A4%22&pn=70&ie=utf-8.

⁵² See sample chapter of Roger Faligot, *Secret history of Chinese Spies: Chapter 12: The People’s Liberation Army of Cyberwarriors* (Paris: Nouveau Monde Editions), www.lerenseignement.com/nouveaumonde/pdf/4200_Les-services-secrets-chinois---version-anglai.pdf.

⁵³ The Third Department is also known as the Technical Reconnaissance Department (技术侦察部). See “Lantern Through the Night” (“走夜路的灯笼”: 军委二局), *Xinhua*, July 4, 2011, at www.js.xinhuanet.com/xin_wen_zhong_xin/2011-07/04/content_23160214.htm.

⁵⁴ For one report on challenges to Chinese networks, see “Rising Releases 2010 Report on Threats to Corporate Security (瑞星发布 2010 企业安全报告 九成国内企业曾被入侵),” *China Rising*, March 11, 2011, at www.rising.com.cn/about/news/rising/2011-03-11/9056.html.

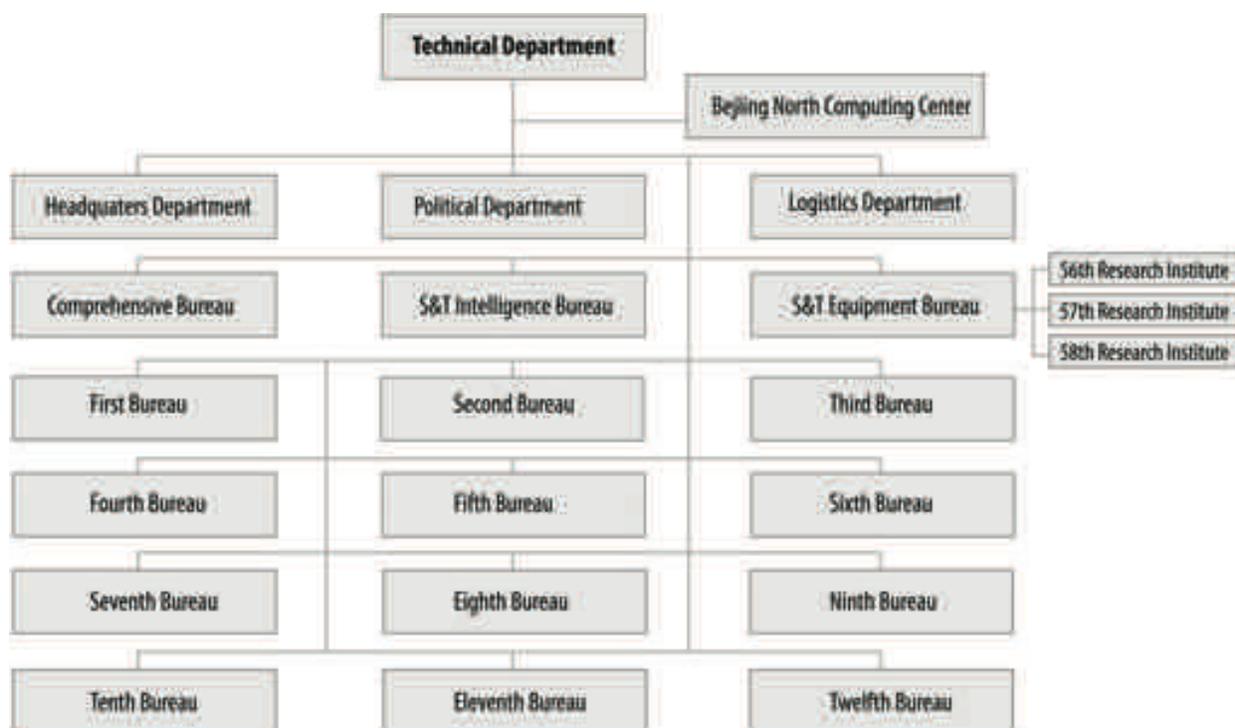
⁵⁵ See, for example, “Tracking GhostNet: Investigating a Cyber Espionage Network,” *Information Warfare Monitor*, March 29, 2009, at www.nartv.org/mirror/ghostnet.pdf. SIGINT consists of communications intelligence (COMINT) and electronic intelligence (ELINT). The latter involves collection, analysis, and storing of radar emissions. See Ian Easton and Mark Stokes, *China’s Electronic Intelligence Satellite Developments: Implications for U.S. Air and Naval Operations* (Arlington, VA: Project 2049 Institute, 23 February 2011).

⁵⁶ See James Mulvenon, “PLA Computer Network Operations: Scenarios, Doctrine, Organizations, and Capability,” in *Beyond the Strait: PLA Missions Other Than Taiwan*, eds. Roy Kamphausen, David Lai, and Andrew Scobell, Strategic Studies Institute, U.S. Army War College, April 2009, p. 274; and Bryan Krekel, “Capability of the People’s Republic of China to Conduct Cyber Warfare and Computer Network Exploitation,” Northrop Grumman Corporation Information Systems Sector Report for the US-China Economic and Security Review Commission, at www.uscc.gov/researchpapers/2009/NorthropGrumman_PRC_Cyber_Paper_FINAL_Approved%20Report_16Oct2009.pdf.

(CNO) in China often are referred to as “network attack and defense,” based on the premise that “without understanding how to attack, one will not know how to defend.”⁵⁷ In the U.S. lexicon, CNO includes computer network attack (CNA), CNE, and computer network defense (CND).⁵⁸

Nestled in the quaint Xianghongxi community in the western hills of Beijing’s Haidian District, the GSD Technical Department headquarters complex is clustered together with the GSD Operations Department, including its 24 hour watch center in Xishan Mountain, the Academy of Military Sciences (AMS), and National Defense University (NDU). Technical Department bureau, office, and section facilities and sites located throughout China report directly to Beijing, and are not under administrative jurisdiction of MR commanders or political commissars.

Figure 6: GSD Technical Department



⁵⁷ For the concept of “without understanding how to attack, one will not know how to defend” (不懂进攻就不会防守), see Qiu Junbo (邱俊波) and Hu Zewen (胡泽文), “The Incredible Abilities of Hacker MM: Chengdu Area Universities’ Cyber Defense and Attack Competition” (‘黑客 MM’实力不俗 成都高校举办网络攻防大赛), *Sichuan Morning News*, April 25, 2005, <http://news.qq.com/a/20050425/001504.htm>. A 2007 news article published on Chengdu’s University of Electronic Science and Technology of China website at <http://news.cduetc.cn/news/xykj/ShowArticle.asp?ArticleID=5030>. Also see You Ming and Zhou Xiyuan, “Analysis of Attack and Defense Mechanisms in Information Network War (信息网络对抗机制的攻防分析),” *Network Security Technology and Application*, December 6, 2004, at http://tech.ccidnet.com/art/1101/20041206/185771_1.html.

⁵⁸ See “Information Operations,” Joint Publication 3-13, Joint Chiefs of Staff, February 13, 2006, at www.fas.org/irp/doddir/dod/jp3_13.pdf.

Details on Technical Department leadership are scarce. Like other second level GSD departments, the Director and Political Commissar are equivalent to a Group Army Commander.⁵⁹ The Technical Department has a subordinate third-level Headquarters Department, Political Department, and Logistics Department, as well as an Comprehensive Bureau (综合局), S&T Intelligence Bureau (科技情报局), and S&T Equipment Bureau (科技装备局). The S&T Equipment Bureau oversees three research institutes responsible for computing, sensor technology, and cryptography.⁶⁰

The GSD Technical Department has direct authority over 12 operational bureaus. Eight of the 12 bureau headquarters are clustered in Beijing. Two others are based in Shanghai, one in Qingdao, and one in Wuhan.⁶¹ The operational bureaus are separate and distinct from technical reconnaissance bureaus (TRBs) under the PLA's seven MRs, PLAN, PLAAF, and Second Artillery. TRB directors likely report to MR, PLAN, PLAAF, and Second Artillery Chiefs of Staff. TRB directors likely report to MR and Service Chiefs of Staff. However, the Technical Department likely provides TRBs with policy guidance and tasking for collection and analysis. Bureau-level leaders have grades equivalent to that of a division leader oversee between six and 14 subordinate sites or administrative divisions (处).

The Technical Department's Beijing North Computing Center (BNCC) appears responsible for design and development of computer network defense, attack, and exploitation systems. One of China's earliest organizations engaged in high performance computing, BNCC leaders are equivalent in grade to an army division commander or Third Department bureau director.⁶²

⁵⁹ Major General Liu Xiaobei (刘晓北) is said to be Technical Department Director and Meng Xuezheng (孟学政) serves as Political Commissar. Liu Xiaobei appears to have replaced Lieutenant General Wu Guohua, who directed the Third Department between 2005 and December 2010. Wu Guohua was assigned as Second Artillery Deputy Commander. Born in March 1954, Wu was trained in Russian and spent most of his career at the Foreign Language Institute. Liu formerly served as Third Department Deputy Director and Political Commissar. Senior Colonel Zheng Junjie (郑俊杰) serves as a second Deputy Director. Zheng formerly directed the Third Department's S&T Equipment Bureau.

⁶⁰ Senior Colonel Geng Ruihua (耿瑞华) serves as S&T Equipment Bureau Deputy Director as of August 2011. See "PLA University of Science and Technology, General Staff Third Department, Visits the Radio Reconnaissance Site Xiaobu to Observe Education (解放军理工大学、总参三部到小布第一部无线电侦察台旧址参观学习)," Ningdu China government, www.ningdu.gov.cn/xwzx/xzdt/201105/t20110503_58574.htm; Liu Xiangdong (刘向东) had previously been in the position. See Zhuang Haobin, "National Information Security Engineering Technology Research Center establishes roots in Shenzhen" (国家信息安全工程技术研究中心"落地"深圳), Shenzhen News (深圳新闻网), October 2, 2008, www.sznews.com/zhuanti/content/2008-10/12/content_3301180.htm; also see Fan Run-hu (樊润虎), "Vice President Xuan Yimin Leads Delegation to Beijing General Staff Third Department for Research and Exchange" (宣益民副校长带队赴北京总参三部调研交流), Science and Technology Agency (科技处), January 18, 2010, at <http://zs.njust.edu.cn/news/news/xyw/20100118140939.htm>. The bureau also oversees a Meteorology Center (计量测试中心) (61236 Unit), which is in the Third Department headquarters area. For reference to the S&T Intelligence Bureau, see "GSD Third Department S&T Intelligence Bureau Visits Our School for Exchange Work" (总参三部科技情报局来我馆交流工作), cnliam.com, May 24, 2011, www.cnliam.com/node/168930.

⁶¹ For further background, see Mark Stokes, Jenny Lin, and L.C. Russell Hsiao, "The Chinese People's Liberation Army Signals Intelligence and Cyber Reconnaissance Infrastructure," Occasional Paper, Project 2049 Institute, 11 November 2011.

⁶² BNCC, which is also referred to as the GSD 418th Research Institute, has a military cover designation of the 61539 Unit (previously was the 57370 Unit).

On behalf of the State Council's Ministry of Science and Technology, National Crypto Management Center, State Security Bureau, Ministry of Public Security, and Ministry of State Security, the GSD Technical Department also has administrative oversight of at least three information security engineering bases located in Shanghai, Beijing, and Tianjin.⁶³

Training and education for Technical Department personnel is generally conducted at one of two institutions. Most linguists assigned to Technical Department bureaus and TRBs receive language training at the PLA University of Foreign Languages in Luoyang, the rough counterpart of the Defense Language Institute (DLI) in Monterey, California.⁶⁴ Upon graduation, they are assigned to a bureau for mission specific technical training. Technical training for electrical engineers, communications specialists, computer scientists, network security personnel is conducted at the PLA Information Engineering University (PLAIEU/解放军信息工程大学) in Zhengzhou, Henan Province.⁶⁵

GSD Informatization Department

The GSD Informatization Department (总参信息化部), referred to as the Communications Department (总参通信部) prior to June 2011, is responsible for developing, constructing, operating, and maintaining the PLA's nation-wide command, control, communications, computers, and intelligence (C4ISR) system.⁶⁶ The department also works with civilian ministries and companies at the national and provincial levels to enhance PRC's telecommunications infrastructure. The Informatization Department supports development of PLA operational and technical requirements for telecommunications.

In addition to Political and Comprehensive Planning Bureaus, the Informatization Department includes the S&T Equipment Bureau (科技装备局), which plays a central role in operational and technical requirements development. The S&T Bureau is supported by the GSD 61st Research

⁶³ See "Construction Completed on National Information Security Engineering Technology Center Website (国家信息安全工程技术中心网站完工)," Beijing Lan Bo Synergy Technology Co. Ltd. (北京蓝博融智科技有限公司), September 22, 2008, at www.librich.com/news_view.asp?viewid=51; furthermore, Beijing Guowei Xin'an Network Technology Company (北京国卫信安网络技术有限公司) works closely with Third Department First Bureau in supporting the project. See "Yin Chuan-xi (尹传喜)," at www.ushi.cn/p/2991; and "Cooperation Partners," China Cuslink Co., Ltd. (北京中海通科技有限公司), at www.cuslink.cn/Partners.aspx.

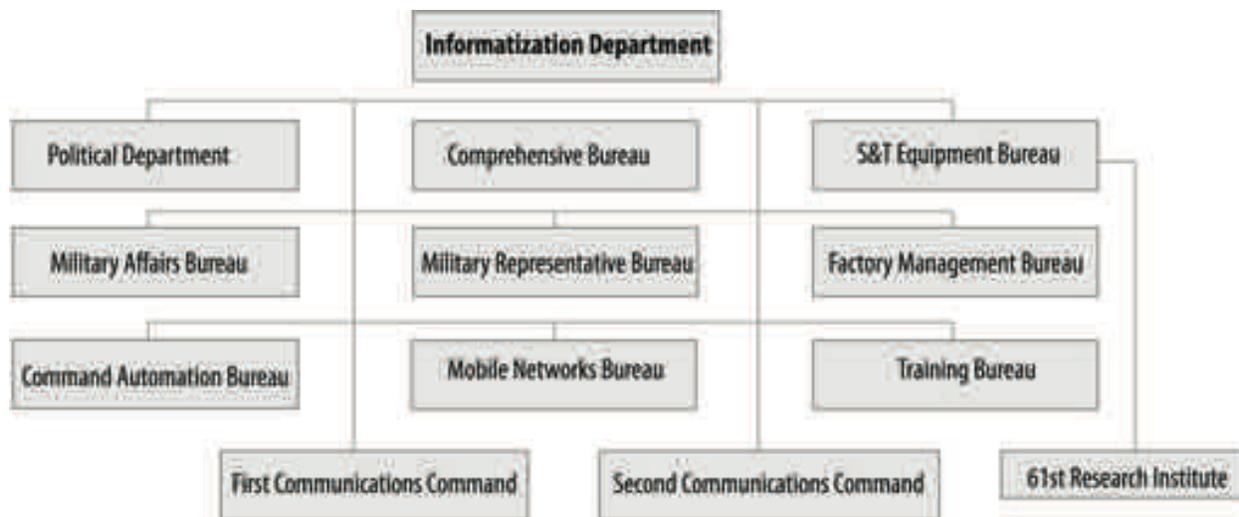
⁶⁴ In addition to the Third Department's Luoyang language center (解放军外国语学院), the GSD Second Department may also have a foreign language training center in Nanjing.

⁶⁵ The Information Engineering University was formed in 1999 through merging of several academies responsible for information engineering, surveying, and other specialties. The University's website can be accessed at www.plaieu.cn/. See "2010 China People's Liberation Army Information Engineering University Requirement for Admissions (2010年中国人民解放军信息工程大学招生章程)," China People's Liberation Army Information Engineering University (中国人民解放军信息工程大学), August 2, 2010, at <http://gaoxiao.xuanxiao.com/1876/8114.html>.

⁶⁶ As of September 2012, Informatization Department Director was Cheng Dong (陈东). Communications Departments of services and military regions were also renamed Informatization Departments. Among various sources, see Guo Yuandong, "PLA Sets up Four New Departments in One Month – Expert: The Military Reform in China Has Been Launched. It Has Entered a New Time Period of Transformation. The Reform Will Still Go Deeper (解放军 1 月内成立 4 个新部门专家: 中国军事改革启动 进入转型新时期 改革还会深入)," *Fazhi Wanbao*, December 22, 2011.

Institute, also known as the Beijing Institute of Communications (北京通信研究所).⁶⁷ Other bureaus include the Military Affairs Bureau (军务局), Military Representative Bureau (军事代表局) and Factory Management Bureau (工厂管理局), which are responsible for defense industry contracting and coordination; Command Automation Bureau (指挥自动化局); Mobile Networks Bureau (移动网络局); and Training Bureau (训练局). The Informatization Department maintains a training facility in the greater Beijing area.⁶⁸

Figure 7: GSD Informatization Department



The department oversees at least two division leader-level communications commands (通信总站), the first in Beijing (61623 Unit) and the second in Xi'an (61068 Unit). Each communications command oversees a number of communications regiments.⁶⁹ Reportedly, the GSD Informatization Department leverages long-range unmanned aerial vehicles (UAVs), such as those used for strategic reconnaissance.⁷⁰

⁶⁷ The 61st Research Institute is located in Lugouqiao area of Beijing's Fengtai District, specifically 郑常庄村郑常庄 67 号.

⁶⁸ The training base is probably the 61579 Unit. As of June 2012, Tian Wei (田伟) directed the S&T Equipment Bureau.

⁶⁹ The First GSD Communications Command was formerly designated the 58001 Unit. Units under the First Communications Command may include: 61035 Unit (First Regiment, Beijing, Changping District, Yangfang Village); 61416 and 61932 Units (Third and Fifth Regiments, Beijing Wanshou Road); 61468 Unit (Sixth Regiment, Xinzhou City, Dingxiang County); 61516 Unit (11th Regiment, Lengquan Village in the Beijing suburb of Xibeiwang); 61593 Unit (possibly the 10th Regiment, although indications exist it has been closed). The 61345 Unit (Second Regiment, Ankang) and 61413 Unit (Ninth Regiment, Xiangyang) are said to be under the Second Communications Command. The 61892 Unit is a satellite ground station in Shantou. The Informatization Department is also said to oversee an information support base (总参谋部信息保障基地; possibly the 61088 Unit).

⁷⁰ At least one source asserts that the GSD Informatization Department also leverages UAVs. See, for example, Andrei Chang, "Application of Strategic Reconnaissance UAVs in Chinese Armed Forces," *Kanwa Asian Defense Review*, No. 86, December 1, 2011, p. 6-7.

GSD Strategic Planning Department

On 22 November 2011, GSD officially established a new Strategic Planning Department (SPD/战略规划部). This new second-level department was founded on the basis of the GSD Operation Department's Strategic Planning Bureau, upgrading it into a corps leader-grade organization.⁷¹ The Strategic Planning Department may support the CMC through the COGS in a number of areas. First, the department may offer long term analysis of the international security environment, including net assessment of evolving national security challenges, balances, and required future capabilities required to meet challenges. It may cooperate or conflict with military intelligence (e.g., Second and Third Departments) and defense doctrinal and academic communities (e.g., AMS and NDU).

The Strategic Planning Department may also be responsible for organizational transformation through analysis of alternative organization and command relationships, such as possible formation of Army Service HQ and restructuring Military Regions. There could be a possible linkage with reorganization of the GSD Training and Service Arms Department. The new GSD Training Department establishes foundation for future incorporation of Armored and Artillery and Air Defense Bureaus into Headquarters Department of Army General HQ. It is possible that it could incorporate some responsibilities of the GSD Military Affairs Department. The department also may assess costs and benefits of a military region realignment, such as possible incorporation of Chengdu MR into Lanzhou and Guangzhou MRs; incorporation of Jinan MR into Beijing or Nanjing MR

A third mission of the Strategic Planning Department could be strategic resource allocation. This could include advising the CMC on broad budget priorities and allocation decisions to support force transformation goals. The department could have a possible role in developing defense planning and policy guidance, including illustrative scenarios as basis for planning, programming, and budgeting. The GSD Strategic Planning Department may also be responsible for departmental and “domain” coordination. In implementing defense planning guidance from CMC, it may establish and manage formal coordination mechanisms between GSD Departments, the four General Departments (e.g., GSD, GPD, GLD, and GAD); Army, Air Force, Navy, and Second Artillery.⁷²

Based on analysis of available information, the Strategic Planning Department has 3-4 deputy directors. According to a brief discussion in Washington DC in August 2011, one of the deputy directors stated that the department has five subordinate bureaus and two directly subordinate research centers. A review of available information indicates that the subordinate bureaus

⁷¹ For example, see Chung Chien, “Meaning of Setup of a New Strategic Planning Department by General Staff Department (总参新设战略规划部意涵),” *Feng Huang Chou Kan*, December 15, 2011. Yao Yijiang, Lu Zhengtao, and Zhang Xuege, “Think Tank Construction: A New Center of Gravity in China’s Military Reform,” *Nanfang Zhoumo*, January 4, 2012.

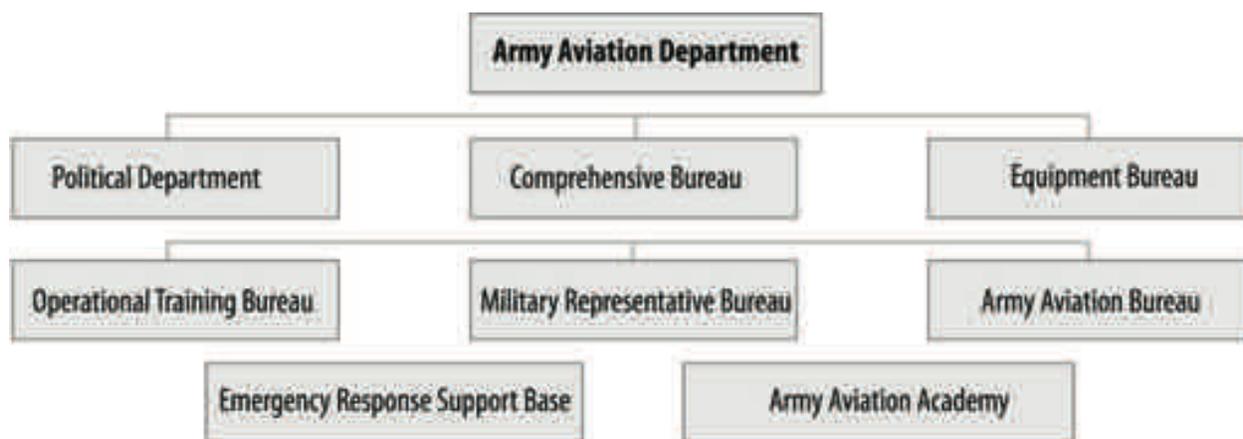
⁷² The Strategic Planning Department may be linked with the CMC Strategic Committee (战略委员会), or Strategy Small Working Group (战略小组). The Strategic Planning Department could oversee a GSD International Situation Study Group (总参国际形势研究小组), although little is known about the organization. Major General Chen Shoumin (陈守民) was identified as Deputy Director in March 2012. For at least one reference, see www.360doc.com/content/11/0409/09/1298788_108324159.shtml. and www.21ccom.net/articles/qqsw/zlwj/article_2011113049577.html. And http://news.ifeng.com/opinion/zhuanlan/xuelitai/detail_2011_11/24/10873044_0.shtml.

include Development Planning, Strategic Resources, Strategic Research, and Statistical Assessment.⁷³

GSD Army Aviation Department

Headquartered in Beijing’s eastern Tongzhou District, the GSD Army Aviation Department (总参陆航部) is responsible for developing operational and technical requirements for attack, transport, and other utility helicopters, and maintains direct control over much of the PLA’s army aviation assets.⁷⁴ Established as a bureau under the Service Arms Department (兵种部) in 1986, the Army Aviation Department became an equal department in 1995. Among its bureaus include the GSD Army Aviation Department Comprehensive Bureau (综合局); Equipment Bureau (装备局); Operational Training Bureau (作战训练局); and Military Representative Bureau (军代局). The GSD Army Aviation Department also oversees a flight academy and Flight Test Group (61297 Unit) that is located at Jingdezhen.

Figure 8: GSD Army Aviation Department



GSD Military Training Department

In December 2011, the GSD Military Training and Service Arms Department (总参军训与兵种部) was reorganized into the GSD Military Training Department (总参军训部).⁷⁵ Detailed status of the bureaus that have represented the “Service Arms” portion of the previous department remains unknown. The Training and Service Arms Department had been separate before their

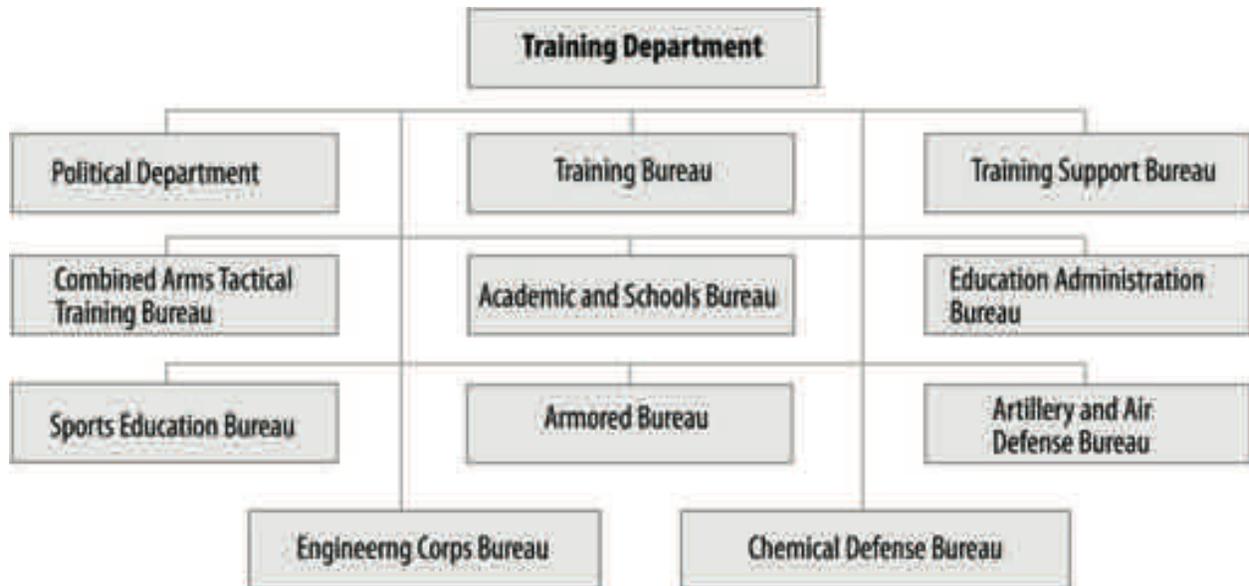
⁷³ Zhou Feng, “The formation of the strategic planning department move our military to adapt to the new revolution in military affairs (组建战略规划部是我军适应新军事变革之举),” *China Daily*, 1 December 2011. Accessed at www.chinadaily.com.cn/micro-reading/dzh/2011-12-01/content_4538211.html.

⁷⁴ Born in 1957, Major General Yuan Jichang (袁继昌) was appointed as GSD Army Aviation Department Director in September 2011. Yuan is a former PLA Air Force pilot with grade equivalent to a corps leader. He replaced Major General Zhang Ming, who transferred to become GSD Strategic Planning Department Director. Major General Chen Xiangdong (陈向东) has served as Political Commissar and Army Aviation Department Party Secretary since 2010. He was formerly with 14th Group Army in Chengdu Military Region. Deputy Director with force modernization portfolio appears to be Major General You Jun (尤军). He formerly directed Army Aviation Department Equipment Bureau, and has frequent interaction with AVIC and other defense industrial entities. Other Deputy Director is Senior Colonel Sun Delong (孙德龙), who may have operations and training portfolios.

⁷⁵ The Training Department Director is Major General Chen Zhaohai (陈照海) and Political Commissar is He Jiangbo (贺江波).

merger in 2003. GSD has sought to further implement its modernization by revamping its internal bureaucratic structure for training and professional military education (PME).

Figure 9: GSD Training Department



The new Military Training Department is responsible for the “strategic management of military training within the entire armed forces, overall management of training in services and branches, comprehensive management of the construction of branches under ground forces.” This organizational shake-up is intended to serve as a concrete measure to help the PLA adapt to the “requirements of new missions, new situations and new tasks” by centralizing and improving the management of military training and PME. Among other things, it seeks specific improvements in strategic thinking, strategic management theory, joint operations training, joint unit operations training, and service and branches training.⁷⁶

The Department’s Training Bureau presumably is responsible for policy development, joint standards, and oversight, while the Training Support Bureau (训练保障局) most likely manages support functions for training facilities. The Combined Arms Tactics Training Bureau (合同战术训练局) likely focuses on ground force-specific training. Other entities include the Education Administration Bureau (教育局), which presumably is responsible for curriculum development. The Sports Education Bureau (体育训练局) ensures physical fitness standards. The Academies and Schools Bureau (院校局) most likely is responsible for professional military education organizational policy and oversight. Audio-visual Education Bureau (电化教学局) may be responsible for distance learning programs.

⁷⁶ Zhuang Lijun and Liu Feng’an, “Military Training is Planned and Guided at a Higher Level – Military Training Department Under General Staff Department Invites Related Leaders and Experts to Study Strategic Management of Military Training in a centralized Manner,” *PLA Daily*, March 27, 2012, p. 1.

Bureaus responsible for ground force-related policy and force planning include the Armored Bureau (装甲兵局), Artillery and Air Defense Bureau (炮兵防空兵局), Engineering Corps Bureau (工程兵局), and the Chemical Defense Bureau (防化局). The Engineering Corps has been comprised of as many as six engineering *dadui*. These bureaus may be either downgraded in status or perhaps in the midst of resubordination to a new Army general headquarters. This remains speculative.

Like any large new bureaucratic organization, the Military Training Department is likely to be seeking to solidify its place in the GSD hierarchy by promoting new programs to demonstrate commitment to its core mission. In February 2012, it was reported that the GSD inaugurated the PLA's first joint staff advanced training class at the National University of Defense Technology (NUDT/国防科技大学). This inaugural one-year class is comprised of 80 battalion and regiment commanders from the Army, Navy, Air Force and Second Artillery units in the Guangzhou MR. The goal of this program presumably is to elevate the PLA's ability to conduct system-of-system operations based on information systems by cultivating joint operations staff personnel with expertise in "informatization," cross-service campaign and tactical theories, and the ability to coordinate and command joint operations. During the first stage of the program, trainees will receive academic training at NUDT, NDU, and various service command academies. During the second stage of the program, trainees will receive practical training at various service branch departments where they will train on division or brigade-level operations to enhance their joint operation planning capability. Two classes will be held each year, with different MRs rotating commanders through the program.⁷⁷

Another key tool that will be used by the Military Training Department to implement new doctrine and training theory is the promulgation of annual training instructions. For example, the annual military training instructions issued by the GSD of the year 2012 stress the importance of establishing of appraisal standards "based on the systems, categories and grading for the job and position of each individual." One "model" unit, a Guangzhou MR division focused on information warfare, is reported to have implemented these instructions by setting up an appraisal system with more than 1,000 quality indicators in nearly 100 training categories. Reports such as these reflect an attempt by GSD to institutionalize the concept of integrated joint operations at the operational level while underscoring the need for units to refine their training on information-based equipment.⁷⁸

The Military Training Department has also established a sub-organization for joint training.⁷⁹ This is in-line with the overall driving force behind the reorganization of GSD's Military

⁷⁷ Wang Wowen and Pang Kun, "National Defense Science and Technology University Inaugurates the PLA First Joint Staff Advanced Training Class (全军首期联合参谋超前培训班国防科大开学)," *China National Radio Online*, February 14, 2012.

⁷⁸ Liao Baoqi and Shi Binxin, "A Guangzhou Military Region Division Pushes for Change in the Generation of Combat Capabilities by Means of Quality appraisals (广州军区某师以质量标准推动战斗力生成模式转变)," *PLA Daily*, January 20, 2012, p. 1.

⁷⁹ The name of this new sub-organization was not included in the report. See Liu Feng'an, "Promoting the Transformation of Military Training by Building On Our Strengths – An Interview with Chen Zhaohai, Director of the General Staff Military Training Department (乘势而上推进军事训练转变——访总参军训部部长陈照海)," *PLA Daily*, January 13, 2012, p. 2.

Training and Service Arms Department into the new Military Training Department. Whereas the former organization focused heavily on land forces, the new Military Training Department is intended to focus on the entire PLA, unifying the Army with the Navy, Air Force, and Second Artillery.⁸⁰

GSD is responsible for disseminating and implementing PLA doctrine and related training materials for PME. As part of a major push to reform PME in the Chinese military, GSD in the second half of 2010 officially published and issued to all PLA units two series of “new-generation” teaching materials on strategic and campaign theory, totaling 37 volumes and more than five million characters.⁸¹ These materials, which were developed over the course of nearly one year, are intended to provide guidance on winning local wars under informatized conditions. They focus on combining of all forces for joint system-of-system operations and emphasize:

- Integrating information and firepower in planning operations;
- Applying innovative joint command procedures and methods;
- Exploiting superior new operational forces for better tactics and countermeasures;
- Employing networked information systems;
- Engaging in operations in the multi-dimensional land, sea, air, space, and electromagnetic domains.⁸²

These two series of books on strategic and campaign theory were developed by GSD “with the National Defense University as the lead and with the participation of all relevant MRs, military services, and military academies.”⁸³ As part of its effort to apply the new theories and drive the reform of the PLA’s PME, GSD issued a circular on studying and applying the new-generation teaching materials, convened a seminar of key faculty members at intermediate and advanced-level command academies, inspected the application of the new materials in teaching and research, and “promoted the transformation and development of teaching as the military academies.”⁸⁴

GSD Electronic Countermeasures and Radar Department

GSD’s Electronic Countermeasures and Radar Department (电子对抗雷达部) is responsible for radar-related joint operational requirements development and electronic countermeasures

⁸⁰ Please note that this source is affiliated with *Qingnian Bao*. See Guo Yuandong, “PLA Sets up Four New Departments in One Month – Expert: The Military Reform in China Has Been Launched. It Has Entered a New Time Period of Transformation. The Reform Will Still Go Deeper (解放军 1 月内成立 4 个新部门专家: 中国军事改革启动 进入转型新时期 改革还会深入),” *Fazhi Wanbao*, December 22, 2011.

⁸¹ While not stated explicitly, these “teaching materials” are likely to include new editions of *Zhanyi Xue* and *Zhanlue Xue*. See Li Weiya and Hu Junhua, “Seize the Commanding Height of Informatized Warfare – Roundup About the Development and Implementation of New Strategic and Campaign Theory Teaching Materials Organized by the General Staff Department (抢占信息化战争制高点——总参组织新一代战略战役理论教材建设与应用综述),” *PLA Daily*, April 5, 2012, p. 1.

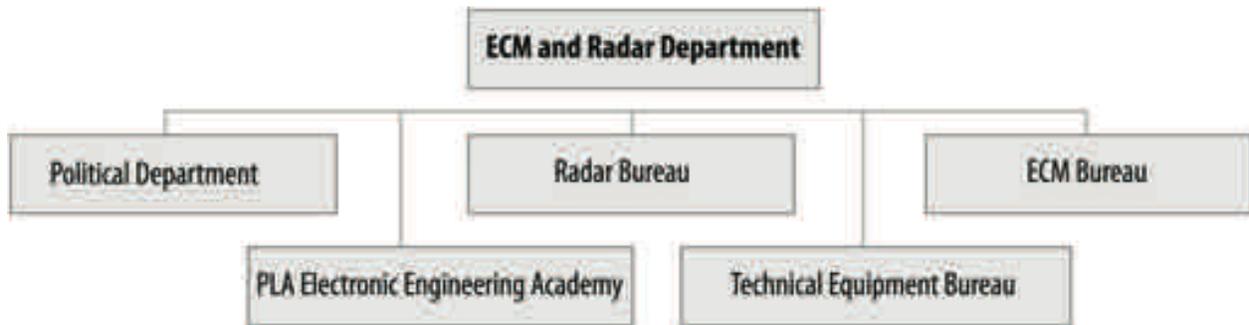
⁸² *Ibid.*

⁸³ Reportedly, this included more than 300 subject matter specialists working on key issues and more than 200 leaders and experts reviewing and editing drafts. Members were drawn from all large units, advanced and intermediate-level command academies, and the four general departments. Li and Hu, “Seize the Commanding Height of Informatized Warfare,” *PLA Daily*, April 5, 2012, p. 1.

⁸⁴ *Ibid.*

(ECM).⁸⁵ Also known as the GSD Fourth Department (总参四部) and 4PLA, priorities appear to include satellite jamming and counter-stealth radar systems. With regard to the former, GSD appears capable of disrupting adversary use of communications, navigation, synthetic aperture radar and other satellites.

Figure 10: GSD ECM and Radar Department



In addition to an advisory group and the GSD 54th Research Institute, the Fourth Department consists of at least four bureaus. The Radar Bureau (雷达局) may specialize in counter-stealth force modernization, among other responsibilities. The ECM Bureau (电子对抗局) is responsible for planning, programming, and budgeting for ECM systems. The Technical Equipment Bureau (科技装备局) appears to be responsible for acquisition.⁸⁶ The PLA Electronic Engineering Academy (PLAEEI/解放军电子工程学院) in Hefei, Anhui Province, is the department's institution for cadet education and technical training as well as officer PME.

Operational units include at least one ECM brigade (61906 Unit) that appears to have been headquartered in the Miyun area north of Beijing. Other unit, possibly an ECM brigade (61251 Unit), is headquartered in the Qinhuangdao area of Hebei Province. The Fourth Department may operate electronic reconnaissance satellite ground receiving stations to support joint targeting, and one or possibly two satellite jamming regiments, including the 61764 Unit on Hainan Island.

GSD Mobilization Department

The Mobilization Department (总参动员部), also known as the MND Recruitment Office (征兵办公室), oversees the reserve force, militia, and annual enlisted ground force recruitment (see the Ministry of National Defense chapter). Fulfilling requirements under the *National Defense Mobilization Law*, the Mobilization Department Comprehensive Bureau (综合计划局) develops general requirements, while the Equipment Bureau (装备局) is responsible for acquisition issues associated with mobilization planning.

⁸⁵ The Fourth Department Director is former GSD 54th Research Institute Director Hao Yeli (郝叶力).

⁸⁶ The Technical Equipment Bureau may also be known as the GSD ECM and Radar Department Third Bureau. Its PO Box is (北京市 8315 信箱三局).

Figure 11: GSD Mobilization Department



Reserve, Militia, and Military Representative Bureaus within the GSD Mobilization Department coordinate with military regions/military districts and the services in managing overall PLA reserve/militia policies and procedures. The Mobilization Department Call-Up Bureau (征集动员局) likely oversees mobilization practices. The Director of the GSD Mobilization Department is dual-hatted as Director, National Defense Mobilization Committee Office (国家国防动员委员会综合办公室).⁸⁷

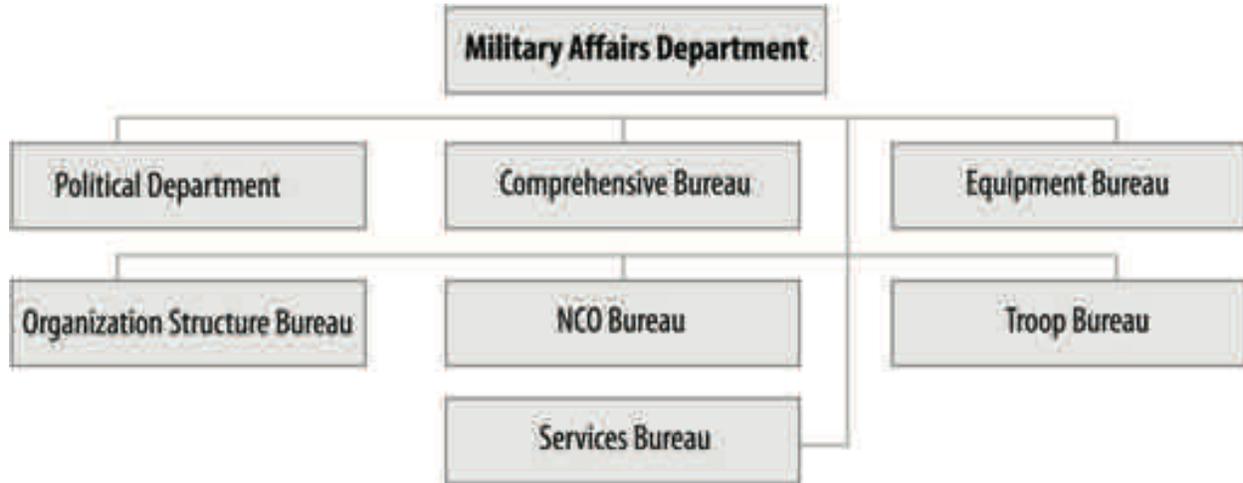
GSD Military Affairs Department

The Military Affairs Department (总参军务部) is responsible for organizational planning and regulations, including the PLA's table of organization and equipment (TO&E).⁸⁸ As such, the department may be responsible for organizational reform. The GSD Military Affairs Department also deals with welfare and benefits policies for servicemen. This includes adjustments related to dependents, dependent children education, housing, medical support, and special allowances based on posts in frontier area or remote regions or islands. Whereas the GPD's Cadre Bureau is responsible for officer personnel issues, the GSD Military Affairs Department serves as the enlisted force's personnel center.

⁸⁷ Mobilization Department Director is Mou Mingbin (牟明滨).

⁸⁸ Chen Dongdeng (陈东登) currently serves as Military Affairs Department Director.

Figure 12: GSD Military Affairs Department



A number of subordinate offices are responsible for organizational planning and personnel force structure. The Organizational Planning Bureau (组织计划局) focuses on broad organizational coordination and command relationships. The Organizational Structure Bureau (编制局) is responsible for personnel force planning, including billet management and professional military education institutional management. The Troop Bureau (兵员局) is responsible for new two-year soldier and the NCO Bureau (士官局) oversees NCO personnel management, among other things. The Service Bureau (队务局) manages garrison force structure planning issues, among other responsibilities. The GPD and GLD entities also appear to be involved in the formulation and institutionalization of these policies.⁸⁹

GSD Management Support Department

The GSD Management Support Department (总参管理保障部) appears to function as the GSD’s logistics enterprise. Bureaus and offices include the GSD Management Support Department’s Comprehensive Management Bureau (综合管理局), which focuses on broad operational logistical requirements. The Health Bureau (卫生局), which manages GSD health planning issues. The Infrastructure and Barracks Bureau (基建营房局) is focused on facilities management, with the Material Supply Bureau (财务供应局) develops requirements for daily use operational supplies. The Retired Cadre Bureau (老干局) oversees veteran issues. The Military Service Training Bureau (军务训练局) conducts planning related to various training facilities.

⁸⁹ Sha Chenglu, Jia Shijiang and Dong Qiang, “Open Door of Happiness for Military ‘Altair and Vega’ – Leaders of Relevant Functional Departments of PLA General Departments Talk About Adjustment on Policy on Dependents Who Accompany Servicemen (为军旅”牛郎织女”打开幸福之门——总部有关业务部门领导谈军人家属随军政策调整),” *PLA Daily*, 25 March 2011.

Figure 13: GSD Management Support Department



Conclusion

In short, the PLA is transforming into a modern military force capable of an increasingly diverse set of missions further from its shores. The GSD is the heart of the PLA and driver of its future. The GSD is responsible for day-to-day joint operations and intelligence, and serves as the focal point for strategic planning and operational requirements development. The GSD encompasses a large, complex bureaucracy consisting of a general executive office and at least 12 second-level departments, each of which has several third-level departments, bureaus, and directly subordinate units. The GSD develops policies, plans, and programs, establishes requirements, and allocates resources to support the PLA mission to defend CCP interests. In addition to its role in military diplomacy and security of senior party and state leadership, the GSD also has overseen ground force operational requirements and planning functions.⁹⁰ Although unconfirmed, the GSD also may be in the midst of managing a PLA reorganization, including standing up an independent Army general headquarters and military region realignment.⁹¹ The GSD oversees a broad and diffuse organizational infrastructure for developing requirements and operating portions of the ground segment supporting space operations.

⁹⁰ For example, Deputy Chief of the General Staff General Ma Xiaotian has been a central player in the U.S. military to military relationship, and has the portfolio for Sino-Indian military-to-military relations. He also is a member of the Taiwan Affairs Leading Small Group. Ma Xiaotian traveled to India in December 2008 and December 2011 to represent the PLA at the second and fourth annual Sino-Indian defense dialogues. He also hosted Indian Defense Secretary Shri Pradeep Kumar in Beijing during the third annual Sino-Indian defense dialogues in January 2010. See “India China Bilateral Defence Cooperation in 2010-11,” *Embassy of India in Beijing*, at www.indianembassy.org.cn/DynamicContent.aspx?MenuId=5&SubMenuId=0_

⁹¹ The last major reorganization of military regions took place in 1985. The establishment of the Fuzhou Military Region was ordered on 22 April 1956, with formal ceremony conducted on 1 July 1956. Consisted of Fujian and Jiangxi Military Districts, with officers of the Fuzhou Military District assuming command. Ye Fei was commander and PC. In June 1985, the MR was absorbed in the NMR.

Chapter Five: The General Political Department

Roy Kamphausen

Introduction and Overview

The General Political Department (GPD/总政治部) of the People's Liberation Army (PLA) is a Central Military Commission (CMC) member-level organization (军委委员). It is led by a Director (主任) who is a member of the CMC (grade: CMC member -军委委员, rank of General) and by four deputy directors (grade of military region leader - 正大军区职, ranging in rank from lieutenant general/vice admiral to general/admiral.) Directors of the GPD have been members of the CMC since at least 1977 when Wei Guoqing (韦国清) became GPD Director after the end of the Cultural Revolution and the overthrow of the Gang of Four.¹

The GPD is responsible for the management and organization of Communist Party work within the PLA; full-spectrum personnel management; development and dissemination of Party propaganda; culture; liaison, security; legal and judicial issues; and investigations. The GPD leads the all-PLA military discipline and inspection system.

The GPD also provides the functional lead for the political commissar system found at all levels throughout the PLA, party committees at battalion and above and party branches at company and below.

The GPD in 2012 has 10 subordinate entities, including a general office, seven second-level departments, the military court, and the military procuratorate, as well as more than a dozen independent direct work entities, which may be situated within the Direct Work Department for bureaucratic reasons. The GPD has three military academies that are subordinate to it, including the Nanjing Political Academy, Xi'an Political Academy, and the PLA Arts Academy (Beijing). In the last several years, several new regulations or guidelines have been issued to govern the activities of the GPD and subordinate elements, in attempts both to regularize the political work and functions within the PLA as well as to retain relevance for the GPD in a rapidly-evolving period of modernization and activity for the PLA. The GPD also leads or participates in at least two national-level committees or small groups, including the Military Discipline and Inspection Committee and the Military Demobilized Cadres Work Reassignment Committee.

This chapter proceeds with a brief history of the GPD. Next, the chapter discusses the leadership of the GPD. Following the leadership section, the chapter examines in detail the structure of the GPD's second- and third-level departments and bureaus. The chapter then discusses the military academies that are subordinate to the GPD and then the national-level committees of which the

¹ The period of the Cultural Revolution was one of great turmoil for the GPD, whose operations were suspended for a period of time, leaders were detained. At one point the CMC political works office took over the functions of the GPD. At the end of the Cultural Revolution one of the Gang of Four, Zhang Chunqiao (张春桥), actually was recognized as Director of the GPD from January 1975.

GPD is a participant. The chapter concludes with a discussion of several issues worthy of further study.

History

In February 1931, the forerunner of the PLA's General Political Department, namely the General Political Department of the Central Revolutionary Military Work Committee (中央革命军事委员会总政治部), was established. Signifying the importance of the department's political work, Mao Zedong himself was the first leader of the GPD. Despite its long history, the GPD is attempting to stay current; the GPD even has its own Facebook page.²

There have been notable structural changes to the GPD over the ensuing eight decades, in many ways paralleling developments that have occurred in the PLA and the Chinese Communist Party more broadly. The most significant restructuring occurred at the Third Plenum of the 11th Chinese Communist Party Congress in 1978 that set up the structure as follows:

1978 Reorganization by CMC Order:

- Organization Department (组织部)
- Cadre Department (干部部)
- Propaganda Department (宣传部)
- Culture Department (文化部)
- Security Department (保卫部)
- Liaison Department (联络部)
- Mass Works Department (群工部)
- Military Procuratorate (军事检察院)
- Military Courts (军事法院)
- General Office (办公厅)
- Direct Administratively Managed Department (直政部)
- Management Bureau (管理局).

Further revisions led to a structure for the GPD in the late 1980's that included: General Office (办公厅), Organization Department (组织部), Cadre Department (干部部), Propaganda Department (宣传部), Security Department (保卫部), Culture Department (文化部), Mass Works Department (群众工作部), Liaison Department (联络部), Old (retired) Cadres Bureau (老干部局), Military Court (军事法院), Military Procuratorate (军事检察院), and the Directed Work (直工部) department.

Today, the GPD has 10 subordinate second-level departments or work units (单位), including the General Office (办公厅); Cadre Department (干部部); Organization Department (组织部); Propaganda Department (宣传部); Liaison Department (联络部); Security Department (保卫部); Discipline Inspection Department (纪律检查部); Directly Subordinate Work Departments (直属

² <https://www.facebook.com/pages/Peoples-Liberation-Army-General-Political-Department/215439231821847?rf=249676901714379>.

工作部); Military Court (军事法院); and Military Procuratorate (军事检察院).³ The Military Court and Military Procuratorate also have reporting responsibilities to other functional entities, in the case of the military courts to the Supreme People's Court (最高人民法院) and Supreme People's Procuratorate (最高人民检察院).

Of note, GPD is the only General Department that does not assign military unit cover designators (MUCDs/部队代号) to its subordinate organizations. The reason for this is that GPD has subordinate departments (部门) and work units (单位) but does not have subordinate units (部队) for which MUCDs are assigned.⁴

Other directly subordinate entities to the GPD include publishing/media functions, including the PLA News (解放军报社), PLA Publishing (解放军出版社), PLA Pictorial Press (解放军画报社), and PLA Arts Press (解放军文艺社). Cultural/entertainment functions include: “August 1st” Movie Studio (八一电影制片厂), PLA Military Song and Dance Troupe (解放军歌舞团)⁵, PLA Opera Troupe (歌剧团), PLA Theater Troupe (话剧团), PLA “August 1st” 解放军八一体工大队, and the Military Band (军乐团). A final direct reporting function is the Military Museum (军事博物馆).

Additionally, GPD personnel are in place at Xinhua's PLA news bureau (新华社解放军分社), Central People's Broadcasting Station military division (中央人民广播电台军事部), and the CCTV military division (中央电视台军事部).⁶

Leadership

Since the establishment of the PRC, there have been 13 Directors of the General Political Department, or its predecessor organizations. Marshal Luo Ruohan (罗荣桓) served on three occasions as GPD Director or equivalent (from April 1950 until October 1954, after a reorganization from October 1954 to December 1956 and then again after Tan Zheng (谭政) was relieved in January 1961 until September 1954). Wei Guoqing (韦国清) served two consecutive terms, from August 1977 until January 1980, and then from January 1980 until September 1982. The position was effectively vacant during several years of the Cultural Revolution, when the leaders of the GPD and then later the structure itself was under attack. At one point in 1968, the CMC political work office undertook the functions of the GPD.

³ The addition of the Discipline Inspection Department and the subordination of the old cadres bureau into the second-level cadre department and the mass works department into the Direct Subordinate Department are what distinguish the current GPD structure from its 1980's version.

⁴ See the Introduction Chapter for further information.

⁵ Peng Liyuan (彭丽媛), reported to be a major general of the PLA Song and Dance troupe, is the wife of new CCP General Secretary Xi Jinping.

⁶ Information accessed at <http://baike.baidu.com/view/114919.htm> on November 19, 2012.

Table 1: Directors of the General Political Department

Name (Chinese)	Date Selected	Previous GPD Positions
Liu Shaoqi (刘少奇)	October 1949	
Luo Ruohan (罗荣桓)	April 1950	
Luo Ruohan(罗荣桓)	October 1954	
Tan Zheng (谭政)	December 1956	Deputy Director (1954-1956)
Luo Ruohan (罗荣桓)	January 1961	
Xiao Hua (萧华)	September 1964	Deputy Director (1954-1964)
Vacant		
Li Desheng (李德生)	December 1969	
Zhang Chunqiao (张春桥)	January 1975	
Wei Guoqing (韦国清)	August 1977	
Wei Guoqing (韦国清)	January 1980	
Yu Quili (余秋里)	September 1982	
Yang Baibing (杨白冰)	November 1987	
Yu Yongbo (于永波)	October 1992	Deputy Director (1989-1992)
Xu Caihou (徐才厚)	November 2002	Deputy Director (1999-2002)
Li Jinai 李继耐)	September 2004	Deputy Director (1990-1992)
Zhang Yang (张阳)	November 2012	

Current Leadership

Just prior to the convening of the 18th Party Congress in November 2012, Guangzhou MR political commissar General Zhang Yang (张阳) (Army) was appointed as the GPD Director and CMC Member (军委委员). Zhang Yang has not served previously in the General Political Department.

Deputy Directors

GPD Deputy Directors are at the Military Region deputy leader level (副大军区职). As of November 2012, deputy directors of GPD are:

- General Jia Tingan (贾廷安) (Army)
- General Du Jincai (杜金才) (Army) (also Secretary of the Central Discipline Inspection Committee)
- LTG Wu Changde (吴昌德) (Army)
- LTG Yin Fanglong (殷方龙) (Army)

Assistant Director is LTG Nian Fuchun (年福纯) (Army).⁷

⁷ Information accessed at <http://china.caixin.com/2012-10-25/100451858.html> and <http://china.caixin.com/2012-10-30/100454034.html> on November 19, 2012.

A brief review of the histories of the deputy and assistant directors shows a variety of backgrounds, including service at lower levels within the GPD itself, as well as political work duties in other departments and the military regions.⁸ In short, there is no critical path to becoming a deputy director of the GPD. And while there does not appear to be a fixed rule that a GPD Director has previously been a Deputy Director of the GPD, the last three GPD Directors before Zhang Yang all previously served in the Deputy Director role.

Prior to his retirement early in 2012, GPD Deputy Air Force General Liu Zhenqi(刘振起) joined Admiral Tong Shiping (童世平) as the top two deputies to GPD Director (and Army General) Li Jinai, creating the appearance of “jointness” within the GPD leadership, in the process almost mimicking the “joint” approach employed to select generals from the other services to be Deputy Chiefs in the General Staff Department. However, in the Fall of 2012 Admiral Tong Shiping has followed General Liu into retirement, with the result that now all of the top GPD leaders hail from the Army. It is unclear if this is a temporary correction or reflects more fundamental misgivings about a nascent “joint GPD”. (Of note, no GPD leader has ever been identified as coming from the Second Artillery branch.)

GPD Grades and Ranks

The following table provides information about the grades and ranks for organizations and personnel within GPD. See the Introduction Chapter for further information.

Table 2: GPD Grade and Rank Structure

Grade	GPD (Ranks)
CMC Member	Director (GEN)
MR Leader	Deputy Directors (GEN/LTG)
MR Deputy Leader	Assistant Directors (LTG/MG)
Corps Leader	2 nd -Level Departments and Directors (MG/LTG)
Corps Deputy Leader	2 nd -Level Department Deputies (MG/SCOL)
Division Leader	3 rd -Level Departments/Bureaus and Directors (SCOL/MG)
Division Deputy Leader	3 rd -Level Department/Bureau Deputies

⁸ Before becoming a GPD Deputy Director, General Jia Tingan was Jiang Zemin’s close confidant, director of his General Office while in Shanghai, then director of the CMC General Office when Jiang became CMC Chair. Similarly, Wang Ruilin (王瑞林) was Secretary to Deng Xiaoping before himself becoming a GPD Deputy Director. While insufficient data exists to confirm the existence of a trend or established practice there may well be a tradition to retain the previous top leader’s confidant as a deputy GPD Director.

Second-level Departments of the GPD

Figure 1: Structure of the GPD, 2012



General Office (办公厅)

The General Office contains the headquarters of the GPD, including the secretaries (秘书) and led by a Secretary-General (functions like a Chief of Staff.) The General Office manages the workflow processes and seeks to implement the decisions and priorities of the Department. The General Office has at least two subordinate bureaus: the Secretary/Executive Assistant Bureau (秘书局), the Legal Bureau (司法局) and the Mass Works Bureau or Office (群工局 or 办).⁹ The Executive Assistant Bureau manages the activities of the assistants to the Director, Deputy Directors, and Assistant Director of the GPD. The Legal Bureau provides legal support to commanders and military operations; almost all of the lawyers within the PLA are in this bureau. It is understood that they do not act as prosecutors, but may serve as defense attorneys.¹⁰ The Mass Works Office contributes to overall national movement efforts, such as the Capital Spiritual Construction efforts.¹¹

Cadre Department (干部部)

The Cadre Department is arguably the most important second-level department in the GPD. The Cadre Department's staff manages all aspects of officer/cadre management within the PLA, including officer accession and initial training requirements; assignments; professional/career training; personnel evaluations and management of pay and benefits. The Cadre Department's subordinate bureaus include at least: The Training/Development Bureau (培训局) – responsible for officer/cadre training initiatives and quotas; Reserve Cadres Bureau (预备干部局) – responsible for managing reserve affairs; Pay and Benefits Bureau (工资福利局) – responsible for all remuneration issues; Civilian Specialist Cadre Bureau (科技文职干部局) – responsible

⁹ Information accessed at http://bbs.tiexue.net/post_2528271_1.html and http://blog.sina.com.cn/s/blog_6b9955500102e74w.html on November 19, 2012.

¹⁰ Author interviews with GPD Legal Bureau staff in April 1999.

¹¹ Information accessed at <http://xxgk.bjwmb.gov.cn/zzjg/sdwmw/> on November 19, 2012.

for managing the civilian work force within the PLA, especially that section that wears uniforms; old (retired) Cadre bureau (老干部局) – responsible for managing veteran’s affairs, with particular emphasis placed on the dwindling cohort of revolutionary veterans; and the Military Academy Bureau (院校局) – responsible for personnel affairs of the military academy system¹².

The Cadre Department places such a central role within the PLA in large part because of the breadth of issues it manages. Responsible for functions as diverse as the accession process planning and direction of the National Defense Student (国防生) program in the Training Bureau¹³; the officer evaluation system¹⁴, the personal identification system¹⁵, and managing the care and consideration given to old cadres (veterans)¹⁶ points to the far-reaching effects of the Cadre Bureau on the people in the PLA.

Organization Department (组织部)

The Organization Department manages the structure of the PLA’s political work system, Party affairs, and is the PLA’s representative to the broader Chinese Communist Party structure and initiatives¹⁷. Its subordinate bureaus include at least the Organization Bureau (组织部), Youth Bureau (青年局), and Party Affairs Bureau.¹⁸ The Organization Bureau is assessed to manage the Party structure responsibilities of the Department. The Youth Bureau in particular has close ties with the Communist Youth League (CYL) and acts to manage and implement CYL activities within the ranks of the PLA.¹⁹

Propaganda Department (宣传部)

This department manages the Party’s messages, both internal and external, through its propaganda and news publishing functions, as well as being responsible for the morale-building activities of the department, including music, sports and drama.²⁰ The department’s subordinate bureaus including the News Publication Bureau (新闻出版局), Culture and Arts Bureau (文化艺术局), Culture and Sports Bureau (文化体育局), Military Unit Propaganda Bureau (部队宣传局) and the Soldier’s Education Bureau (部队教育局).²¹

¹²Information accessed at http://bbs.tiexue.net/post_2528271_1.html; http://blog.sina.com.cn/s/blog_6b9955500102e74w.html; and www.lszsb.com/html/xw/1116.html; <http://ankang.mca.gov.cn/article/gzdt/201204/20120400294328.shtml> on November 19, 2012.

¹³ Information accessed on www.lszsb.com/html/xw/1116.html on November 19, 2012.

¹⁴ Information accessed at http://mil.cnr.cn/gfzc/7/201101/t20110122_507611745.html on November 19, 2012.

¹⁵ Information accessed at www.chinamil.com.cn/jfjbmap/content/2010-08/04/content_35027.htm on November 2012.

¹⁶ Information accessed at www.chinabaike.com/law/zy/0979/1419167.html on November 19, 2012.

¹⁷ Information accessed at www.swszgw.gov.cn/article.asp?pclass=%B7%A8%C2%C9%B7%A8%B9%E6&sclass=%B7%A8%C2%C9%B7%A8%B9%E6&id=395 on November 19, 2012.

¹⁸ Information accessed at http://bbs.tiexue.net/post_2528271_1.html and http://blog.sina.com.cn/s/blog_6b9955500102e74w.html on November 19, 2012.

¹⁹ Information accessed at www.ccy1.org.cn/documents/zqbf/200705/t20070515_26868.htm on November 19, 2012.

²⁰ Information accessed at: <http://politics.dwnews.com/news/2010-08-24/56377705.html> on November 19, 2012.

²¹ Information accessed at http://bbs.tiexue.net/post_2528271_1.html and http://blog.sina.com.cn/s/blog_6b9955500102e74w.html on November 19, 2012.

The News Publication Bureau manages standardization of content and form across the PLA while interfacing with other national and provincial level publication entities on a broad array of publishing initiatives.²² The Culture and Arts Bureau cultivates the development and display of culture and art within the PLA. In addition to putting on performances by PLA artists, the Bureau also puts on national level exhibitions to promote the work of ordinary PLA soldier-artists.²³ The Culture and Sports Bureau promotes athletics within the PLA and for international competitions.²⁴ The Military Unit Propaganda Bureau manages the delivery of Party messages to PLA units, including especially the dissemination of reports on PLA modernization and reforms.²⁵ The Soldiers' Education Bureau helps manage the delivery of non-military related educational content to units and soldiers including on topics related to agriculture, language and moral development.²⁶

Liaison Department (联络部)

The Liaison Department manages the Chinese Communist Party's Interaction with other socialist countries' militaries. Its subordinate bureaus include at least the External Liaison Bureau (对外联络局).²⁷ Of note, for instance, it is the General Political Department that plays a leading role in interactions with North Korea and the Korean People's Army (KPA). GPD Directors have on several occasions visited North Korea during periods of great external pressure on the North, including visits by General Xu Caihou in 2003²⁸ and General Li Jinai in November 2011.²⁹ The near-absence of reporting on operational interactions between the PLA and KPA suggests that the political work liaison is the most substantive part of the exchange. The Liaison Department also includes an intelligence collecting/dissemination function and is a participant on the GSD 2nd Department-led intelligence network.³⁰

Security Department (保卫部)

The Security Department is responsible for military discipline inspection and security within the PLA, as well as general security work including counter-intelligence investigations.³¹ This highly secretive second-level department also plays a role in VIP escort and security.³² The

²² Information accessed at www.kpjk.org.cn/Article/ShowArticle.asp?ArticleID=186 and <http://vip.chinalawinfo.com/newlaw2002/slc/slc.asp?db=chl&gid=185045> on November 19, 2012.

²³ Information accessed at www.cflac.org.cn/ys/ms/mszx/201207/t20120727_142714.html on November 19, 2012.

²⁴ Information accessed at: <http://news.sports.cn/other/2012-04-25/5281.html> on November 19, 2012.

²⁵ Information accessed at www.most.gov.cn/jgdj/jcxsxjhdxl/jcxsxjhdjcdt/200811/t20081124_65492.htm on November 19, 2012.

²⁶ Information accessed at http://archive.wenming.cn/moral/2008-09/21/content_14451774.htm on November 19, 2012.

²⁷ Information accessed at http://bbs.tiexue.net/post_2528271_1.html on November 19, 2012.

²⁸ Information accessed at <http://atimes.com/atimes/Korea/FJ05Dg01.html> November 19, 2012.

²⁹ Information accessed at http://newshopper.sulekha.com/kim-jong-il-li-jinai_photo_2061310.htm on November 19, 2012. The GPD's interactions with North Korea do not seem to involve crisis communications and management functions. In November 2010, the author was part of a visit with then-GPD Director General Li Jinai that occurred several hours after the North Korean shelling of Yeonpyeong Island earlier in the day of the visit (November 23, 2010). General Li was unaware of the attack until briefed by his visitors.

³⁰ Information accessed at www.omnitalk.com/miliarch/messages/870.html on November 19, 2012.

³¹ Information accessed at http://blog.sina.com.cn/s/blog_4d5df974010178ix.html on November 19, 2012.

³² Author interacted with members of the Security Bureau during US VIP visits to China or PLA VIP visits to the United States while serving as a military attaché in Beijing from 1998-2001.

department includes at least the Security Bureau (保卫局), Reconnaissance Bureau (侦察局) and Punishment Bureau (刑侦局) among subordinate organizations.

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Discipline Inspection Department (纪律检查部)

The Discipline Inspection Department functions like an internal watchdog against illegal activities within the PLA. It has at least one subordinate entity, the Discipline Inspection Bureau (纪律检查局).³⁴ The Department also provides investigative and evidence collection assistance for prosecutors of military trials.³⁵

Direct Work Department (直属工作部)

This second-level department serves a series of functions, including as a catch-all for bureaus that either operated independently in an earlier era, or which require a higher profile but do not fit into another second-level department. Its subordinate bureaus³⁶ include the Comprehensive Planning Bureau (综合计划局)³⁷ One citation lists the Legal Bureau (司法局), indicated in the General Office above, as within the Direct Work Department,³⁸ in both instances, the bureau exists as a third-level bureau under direct supervision of the GPD leadership.

Other Direct work units include the Management Support Bureau (管理保障局), Liberation Army Press (解放军报-正军级), Liberation Army Art Academy (解放军艺术学院副军级), Movie Production Facility (电影制片厂-副军级), CCTV Military Affairs Department (中国中央电视台军事部-副军级), Central Peoples Broadcast Station Military Center (中央人民广播电台军事中心-正师级), The Sound of the Strait Broadcast Station (海峡之声广播电台-正师级), People's Revolutionary Military Museum (中国人民革命军事博物馆-正师级), PLA Publishing (解放军出版社), PLA Pictorial Magazine (解放军画报杂志), PLA Arts Publishing (解放军文艺出版社), GPD Song and Dance Troupe (总政歌舞团), PLA Opera House Troupe (解放军歌剧院乐团), PLA Entertainment Unit (解放军玩乐团), PLA Band (解放军乐队), PLA "August 1st" Teams (解放军"八一"运动队), Xinhua PLA Branch (新华社解放军分社).³⁹

The publishing functions performed by the various PLA-related publishing entities are self-explanatory. The purposes of the various entertainment troupes are to entertain leaders and soldiers and to showcase talented PLA entertainers to a broader national and international audiences.⁴⁰ Finally, the active PLA GPD personnel who staff the various national broadcast and

³³ Information accessed at http://bbs.tiexue.net/post_2528271_1.html and http://blog.sina.com.cn/s/blog_6b9955500102e74w.html on November 19, 2012.

³⁴ Information accessed at http://blog.sina.com.cn/s/blog_6b9955500102e74w.html on November 19, 2012.

³⁵ Author's interview, April 1999. Author's interactions with lawyers and judges assigned to the GPD, while escorting a GPD legal delegation to the PACOM Operations and Law Conference in April 1999.

³⁶ Information accessed at http://bbs.tiexue.net/post_2528271_1.html on November 19, 2012.

³⁷ The Comprehensive Planning Bureau performs net assessment and strategic planning functions for the GPD, according to author interviews, April 1999.

³⁸ Information accessed at http://blog.sina.com.cn/s/blog_6b9955500102e74w.html on November 19, 2012.

³⁹ Information accessed at http://blog.sina.com.cn/s/blog_6b9955500102e74w.html on November 19, 2012. This source lists all direct work units as belonging in the Direct Work Department.

⁴⁰ Author has several acquaintances who are active duty members of various PLA troupes, some of whom hold military rank, who are also national television entertainers.

news services highlight the extent to which the GPD is centrally involved in “managing the PLA’s message” for domestic and international audiences.

Military Court (军事法院)

The Court manages the system of subordinate courts and as well serves as the court of final resort for trials under the jurisdiction of the PLA. Of note, within the PLA legal system, judges are often not lawyers, reflecting a different tradition of managing court cases.⁴¹

Military Procuratorate (军事检察院)

Perhaps the single most difficult entity to understand within the PLA, the Military Procuratorate serves investigation work, either independently or in support of trials. The function blends functions associated in the West with attorneys general, police investigators, and internal affairs units.⁴²

⁴¹ Author’s interviews, April 1999.

⁴² Author’s interviews, April 1999.

Table 3: GPD Sub-Department and Bureau Leadership⁴³

Sub-Department and Bureau	Leadership
General Office (办公厅), Secretary-general (秘书长)	Zhang Gongxian (张贡献) 少将
Cadre Department (干部部)	Yu Daqing (于大清) 少将
Organization Department (组织部)	Qin Shengxiang (秦生祥) 少将
Propaganda Department (宣传部)	Zhou Tao (周涛) 少将
Liaison Department (联络部)	Geng Yunming (邢运明) 少将
Security Department (保卫部)	Yu Shanjun (于善军) 少将
Discipline Inspection Department (纪律检查部)	Wang Bingshan (王秉山) 少将
Direct Support Work Department (直属工作部)	Dai Yunpeng (戴云鹏) 少将
PLA Military Court, (解放军军事法院), Chief Justice (院长)	Liu Liqin (刘) 少将
PLA Military Procuratorate (解放军军事检察院) Chief Investigator (检察长)	Li Xiaofeng (李晓峰) 少将
PLA Newspaper Press (解放军报社) Director (社长)	Sun Xiaoqing (孙晓青)
PLA Newspaper Press (解放军报社) Editor-in-Chief (总编辑)	Huang Guozhu (黄国柱) 少将
“August 1 st ” Movie Studio (八一电影制片厂); Manager	Ming Zhenjiang (明振江) 少将
PLA Revolutionary Military Museum (中国人民革命军事博物馆) Museum Chief (馆长)	Chen Shifu (陈士富) 少将
PLA TV Propaganda Center (解放军电视宣传中心) Director (主任)	Li Xiubao (李秀宝) 大校

Academic Institutions

The GPD has three directly subordinate academic institutions: The PLA Nanjing Political Academy (中国人民解放军南京政治学院); the PLA Xi’an Political Academy (中国人民解放军西安政治学院); and the PLA Arts Academy (解放军艺术学院). The Nanjing and Xi’an academies are categorized as intermediate professional education academies (中级任职 教育学院). All three academies are listed as corps leader grade institutions (编制等级为正军级). The Nanjing and Xi’an academies both train political commissars at the initial entry and intermediate levels. They do not appear to differentiate themselves from each other according to their curricula, but it is informally understood that the Nanjing academy specializes in liaison work and Xi’an emphasizes legal/judicial preparations.⁴⁴

In the category of curious observations, the website for the Xi’an Political Academy has an unexplained anomaly. The website shows the front gate of the Xi’an academy, which has a sign

⁴³ Information accessed at www.360doc.com/content/12/0318/11/95411_195325291.shtml on November 19, 2012.

⁴⁴ Author’s interviews, April 1999.

that reads in Chinese 中国人民解放军西安政治学院 (PLA Xi'an Political Academy). But the English subtitle reads "National University of Defense Technology".

Important New Regulations

China's National Defense 2010 describes several new laws and regulations promulgated in the 2009-2010 time period, including "Opinions on Strengthening Political Work in Military Operations Other than War (MOOTW)," promulgated in March 2009, and the "Regulations on Work Procedures for the Selection and Appointment of Military Cadres (Trial)," issued in January 2009, and "Regulations on the Political Work of the Chinese People's Liberation Army," promulgated in August 2010.⁴⁵ The new regulations argue for the political work system of the PLA to contribute to improved warfighting capabilities while reinforcing the absolute leadership of the CCP over the PLA. The regulations discuss the political work importance of the three warfare's - "media warfare, psychological warfare, and legal warfare." Finally, the regulations encourage political work to support military operations other than war.⁴⁶

National-Level Committees/Small Groups

There are two national-level committees or small groups which the GPD either leads or plays a leading role. The first is the CMC Discipline Inspection Committee (中共中央军事委员会纪律检查委员会), which was instituted in its current form in the PLA GPD in November 1980.⁴⁷ The CMC Discipline Inspection Committee serves to "safeguard the Party constitution and other rules and regulations." The National level committee supports a structure that is replicated throughout the PLA at regiment level and above. GPD Deputy Director Du Jincai is secretary-general of the committee.⁴⁸

The second committee is the Military Demobilized Cadres Work reassignment committee (军队转业干部安置暂行办法).⁴⁹ This is a national-level committee that works on policy and implementation regarding the reintegration of PLA cadres into civilian work placement. For instance, in April 2012, the All-Army Demobilized Cadres Work Reassignment Video-conference (全国军队转业干部安置工作电视电话会议) was held. State Councilor and State Council Secretary General Ma Kai (马凯) and CMC Member and then-GPD Director Li Jinai (李继耐) chaired the meeting. Among other points, Li emphasized the importance of treating well those cadres who had been demobilized because of the value it could serve in improving the morale of currently serving troops. It was noted that, in 2011, more than 43,000 cadres were demobilized.⁵⁰ The Political Department participation in the transfer of military cadre to government positions (转业干部安置) process is replicated at all levels nationwide.

⁴⁵ Information accessed at http://news.xinhuanet.com/english2010/china/2011-03/31/c_13806851_14.htm on November 19, 2012.

⁴⁶ *Xinhua News Agency*, 13 September 2010.

⁴⁷ Information accessed at www.360doc.com/content/11/0821/14/7499155_142157179.shtml on November 19, 2012.

⁴⁸ Information accessed at <http://blog.people.com.cn/article/28/1353200320258.html> on November 19, 2012. General Du Jincai is also a member of the new Central Discipline Inspection Commission.

⁴⁹ Information accessed at www.lysrsj.gov.cn/xinxigongkai/zhengcefangui/guojiafangui/2012-03-29/149.html on November 19, 2012.

⁵⁰ Information accessed at 2011.www.chinanews.com/gn/2012/04-26/3849505.shtml November 19, 2012.

Chapter Six: General Logistics Department Organizational Reforms: 2000 – 2012

Erin Richter, Leigh Ann Ragland, and Katherine Atha¹

Assessments and measurements of the PLA's success or failure should avoid simplistic and direct comparisons to other modern military logistics systems, especially evolving Western logistics systems. Analysts should avoid assessments based on perennially limited information that habitually disdain PLA logistics as a historically weak link. On the contrary, PLA logistics have proven highly adaptable and flexible to the situation. Often PLA logistics was not "pretty." It lacked efficiency, expended excessive personnel and other resources, or it failed to support decisive engagements. Significant shortfalls do exist. Nonetheless, PLA logistics has been proficient in providing sufficient operational support to massive numbers of personnel and equipment of mixed generations and origins that would make Western logisticians blanch.

Susan Puska, "The People's Liberation Army (PLA) General Logistics Department (GLD): Towards Joint Logistics Support 2000."

Introduction

This chapter follows the People's Liberation Army (PLA) General Logistics Department (GLD) (总后勤部) from the 2002 *The People's Liberation Army as Organization* conference. The 2002 chapter on the GLD, along with several other publications, provided a good foundation for examining the historical background of the GLD's organizational structure. However, while researching the GLD's organization, we discovered that the majority of authoritative sources on the GLD are dated 2003 or earlier. Many documents draw heavily on the *People's Liberation Army Military Logistics Encyclopedia* published in 2002, which predates major GLD reorganizations that began in 2003. At this time, no openly available publication, in English or Chinese, comprehensively captures the organizational changes within the GLD.

To complicate matters, there appears to be a great deal of confusion within the PLA and among PLA watchers surrounding the organization of the GLD. While blog entries are notoriously inaccurate, what was surprising was the inaccurate reporting of the GLD organization structure in official government and military publications. For example, in June 2005, a PLA periodical *Junshi Shilin* (军事史林), published by the General Political Department's (GPD's) Propaganda Department and organized by the Chinese Revolutionary Army Military Museum, carried an article on the GLD and General Staff Department's (GSD's) recent reorganization. In the article,

¹ The statements of fact, opinion, or analysis are those of the authors and do not necessarily reflect the official policy or position of the Department of Defense, or the U.S. Government.

the author erroneously listed the GLD's subordinate departments as they were organized prior to 2002, but published a five page list of corrections in a later edition.²

In order to delineate the GLD's organizational structure, we assembled data from a wide variety of sources. In most cases, we were able to confirm these organizations were still active in the last three years. The primary sources used are shown below:

- *Science of Strategic Logistics* (2001)³
- *Encyclopedia of China Publishing House* (2007)⁴
- *World Military Yearbook* (2009, 2010)⁵
- *Chinese Military Encyclopedia* (1997, 2002, 2007)⁶
- *Chinese Military Logistics Encyclopedia* (2002)⁷
- Recruitment, promotion, and award announcements
- GLD organization websites
- Official press reports
 - *PLA Daily* (解放军报)
 - *Xinhua* (新华)
 - *China Military Online* (中国军网)⁸
- Press releases
- Chinese journals
 - *Military Economics Research* (军事经济研究)
 - *China Logistics & Purchasing* (中国物流与采购)
 - *Petroleum Products Application Research* (石油商技)

This chapter focuses on the organizational structure of the GLD, not the development of the PLA joint logistics system. An excellent treatise on the subject is Susan Puska's article "Taming the Hydra: Trends in China's Military Logistics Since 2000" published in the June 2010 U.S. Army War College Strategic Studies Institute publication *The PLA at Home and Abroad: Assessing the Operational Capabilities of China's Military*.

² Liao Feng, "Corrections for the Historical Evolution of our Military's General Staff Department and General Logistics Department (关于我军总参、总后历史沿革若干情况的补正)," *Junshi Shilin* (军事史林), June 2005, vol. 7, p. 1-5.

³ Wan Xiaoyuan, Cao Tingze eds., *Science of Strategic Logistics* (战略后勤学), Beijing: PLA Press, April 2001, p. 152.

⁴ Zhao Yiping, ed., *Encyclopedia of China Publishing House, Second Edition* (中国大百科全书出版社第二版), Beijing: China Publishing House December 2007.

⁵ *World Military Yearbook* (世界军事年鉴), Beijing: PLA Press, 2009. *World Military Yearbook*, Beijing: PLA Press, 2010.

⁶ *Chinese Military Encyclopedia* (中国军事百科全书), Beijing: Military Science Publishing House, 1997. *Chinese Military Encyclopedia* (中国军事百科全书), Beijing: Military Science Publishing House, 2002. *Chinese Military Encyclopedia* (中国军事百科全书), Beijing: Military Science Publishing House, 2007.

⁷ *China Military Logistics Encyclopedia* (中国军事后勤百科全书), Beijing: Gold Shield Press, 2002.

⁸ Sponsored by *People's Liberation Army Daily* and has official authorization from the PLA to release news.

GLD's Role and Missions

The GLD is responsible for the management of logistics and logistics support work for the entire PLA under the leadership of the Central Military Commission (CMC). It is responsible for military finance, supply, subsistence, transportation, fuel, infrastructure construction, facilities management, health services, and auditing. The Department's basic missions are to plan and lead the implementation of logistics work for the entire military; to draft rules, ordinances, and regulations for logistics work; recommend organization of logistics forces; organize logistics war preparations and mobilization; train logistics personnel; equip units with logistics equipment; draft the PLA's budget and supervise approved budget execution.⁹

With the guidance of the GLD but under the leadership of the heads of their own services' and service arms' Party Committees (党委), the logistics departments of the Navy, Air Force, and Second Artillery are the leading organs for the specialized logistics work of their own services and service arms.¹⁰

GLD organizations are assigned Military Unit Cover Designators (MUCDs) 62000 – 62999.

Logistics Reforms and Corresponding GLD Organizational Shifts

Over the past decade, the PLA has carried out a revolution in military affairs that has fundamentally altered the means and mechanism by which China is able to wield its military as an instrument of national power. A significant component of this transformation can be seen in the reforms carried out within the GLD and its subordinate combat support, financial, material, fuel, medical, transportation, capital construction and barracks, and audit organizations. **These reforms have produced** major changes in the organizational structure of the GLD as well as its doctrine, training, and the operational mechanisms by which it carries out peacetime and wartime logistics support.

Contemporary reforms to the PLA's logistics system germinated from the PLA's resounding logistics failures in the Sino-Vietnam War of 1979, PLA observations of United States military operations in the Balkans and Persian Gulf in the early 1990s, and self-criticism of its inferior military capabilities during the 1995-1996 Taiwan Strait Crisis. During an enlarged meeting of the CMC in December 1998, Chinese President and CMC Chairman Jiang Zemin introduced the "PLA Joint Combat Program" outlining China's strategy for national defense and PLA modernization. Key characteristics of the program included the requirement to:

- Unify PLA services and arms to achieve a joint operational capability and strategic unity of effort
- Holistically modernize PLA doctrine, force structure, equipment, and infrastructure
- Speed PLA withdrawal from commercial business

⁹ "General Logistics Department (总后勤部)," *Dictionary of National Defense Economics* (国防经济学分册), Beijing: Military Science Publishing House, November 1999, p. 55.

¹⁰ Yuan Wenxian and Wun Ruling, ed., *Introduction to High Ranking Organ Work* (高级领率机关工作概论), Beijing: Defense University Press, 2005, p. 317.

- Surge funding for the PLA¹¹

Nested in the program was a 10-year PLA logistics support system reform plan introduced by the director of the GLD, General Wang Ke, which emphasized:

- Developing a joint logistics system at the Military Region (MR) level
- Streamlining logistics organizations
- Improving logistics training and modernizing equipment
- Standardizing and increasing transparency of military supplies and maintenance funds
- Transitioning to a financial vice materiel remuneration system for officers
- Socialization of support functions – replacing military support personnel with civilian professionals and contracting out logistics services to civilian companies
- Scientifically managing logistics services¹²

The “PLA Joint Combat Program,” also named the “No. 13 PLA Combat Order” was signed 24 January 1999.¹³ Within a year of its implementation, major organizational reforms were underway within the GLD. Bloated from over a decade of entrepreneurial adventures, by early 1999 the GLD began shedding its corporate investments, handing over factories and other commercial businesses to the civilian sector.¹⁴ Many of the bureaus subordinate to the GLD’s Production Management Department (生产管理部), which was responsible for managing much of the GLD’s commercial enterprise and factory system, were downsized and realigned under various other GLD departments. In October 2000, the GLD’s Production Management Department was officially eliminated with its remnant functions transferred to the GLD Materials and Fuel Department’s (总后勤部物资油料部) Factory Management Bureau (工厂管理局).¹⁵

In September 2001, two major agricultural production enterprises, the Chenhu Base (沉湖基地) in Hubei Province and the Nenjiang Base (嫩江基地) in Heilongjiang Province were transferred to local government authorities.¹⁶

By 2002, socialization of support functions was in full swing in terms of reducing the overall size of the logistics system and associated management structures. According to *China’s National Defense 2002*, by 2002 thousands of mess halls and service centers (small post exchanges) had been turned over to civilian companies, barracks turned over to real estate managers, and support enterprises and farms turned over to central or local civilian government

¹¹ Pei Fang, “Major Operation to be Performed on Military Logistics System,” *Kuang Chiao Ching* (广角镜), no. 318, 16 Mar 1999, p. 50-52.

¹² Ibid.

¹³ Ibid.

¹⁴ Cao Haili, “The Chinese Army Has Sailed Out of the Business Sea,” *Beijing Zhongguo Qingnian* (北京青年旅行社), 15 February 1999, p. 4-7. James Mulvenon, “Soldiers of Fortune: The Rise and Fall of the Chinese Military-Business Complex, 1978-1998” M.E. Sharpe, Inc, 2001.

¹⁵ Xinxing Cathay International Group, “Historical Evolution (历史沿革),” accessed at www.xxci.com/jtgk/lsgy/index.htm on 13 May 2012.

¹⁶ Tianmen Peoples Government, www.tianmen.gov.cn/root10/xzbcq/0128/.../t20090421_25297.html, accessed 13 May 2012.

control. About 200,000 personnel were no longer on the PLA's payroll and 29,000 enlisted personnel were reassigned to other duties. Other functions partially contracted out to private or government-owned enterprises include vehicle maintenance, transportation services and fuel support, medical support, shore service for naval ships, and food and supplies for units on long-distance road marches.¹⁷

At the end of the Chinese Communist Party's (CCP's) 16th Congress (中国共产党第十六次全国代表大会) in November 2002, Jiang Zemin reportedly introduced to senior military officers a new strategy for furthering military transformation. Publically announced in March 2003, this strategy envisioned achieving the capability of winning local limited wars under high tech conditions by 2010, optimizing the organization and quality of PLA personnel and systems by 2020, and achieving a fully informationized force equal to or surpassing the U.S. military by 2050.¹⁸ The GLD leadership subsequently developed a strategy for speeding up logistics reforms.

In addition to improvements to the joint logistics system, a major element of this revised logistics development strategy focused on force structure adjustments to streamline logistics forces, eliminating redundant structures left over from the MR-level joint logistics reforms and redundancies within the GLD's directly subordinate organizations.¹⁹ In September 2003, Jiang Zemin announced the plan to further reduce the PLA by 200,000 troops by 2005²⁰. These cuts did not take place across the board but selectively reduced some units and increased others in order to improve the capability of combat units. While not the sole target, logistics organizational reform was a major goal of this reduction.²¹

Apart from special purpose depots and general hospitals under the General Departments and services, all other rear depots, hospitals, and recuperation centers were integrated and reorganized under the joint logistics support system. A total of eight *division-level logistics organizations (Joint Logistics Sub-Departments)*, 94 rear depots, and 47 hospitals and recuperation centers were closed. According to GLD director, General Liao Xilong, these personnel cuts totaled at least 74,000.²² In addition to these closures, the GLD executed a major restructuring of directly subordinate organizations between 2003 and 2004, which includes the following:

- GLD organizations that were eliminated:

¹⁷ "China's National Defense in 2002," *PLA Daily* in English, 10 October 2002 and 30 December 2001.

¹⁸ Wen Tao, "China to Speed up Military Transformation with Chinese Characteristics, Push for Informatization of the Armed Forces," *Ching Pao (鏡報)*, 1 June 2003, p. 40-42.

¹⁹ Liao Xilong, "Personally Experiencing Jinan Theater's Major Joint Logistics Reform," *PLA Daily* in English, 16 December 2008, p. 7.

²⁰ For a summary of this force reduction, see introduction chapter.

²¹ *Ibid*; Wen, "China to Speed up Military Transformation with Chinese Characteristics," p. 40-42. Cheng Ying and Xu Jinzhang, "Inside Story of PLA Logistics Reforms (解放军后勤变革内情)," *Oriental Outlook (瞭望东方周刊)*, 19 January 2006, No. 3, p. 33-34, 36-38.

²² "China's National Defense in 2006," accessed at www.china.org.cn/english/China/194332.htm on 16 January 2006. Liao Xilong, "Personally Experiencing Jinan Theater's Major Joint Logistics Reform," *PLA Daily* in English, 16 December 2008, p. 7.

- The Finance Department's (财务部) Military Products Corporate Enterprise Bureau (军产企业财务局)²³
- The Audit Office's (审计署) Engineering Enterprise Audit Bureau (工程企业审计局)²⁴
- GLD responsibilities transferred to civilian control:
 - The Quartermaster Department's (总后勤部军需部) Military Supplies University (大学军用物资)²⁵
 - The Health Department's (卫生部) First Military Medical University (第一军医大学)²⁶
 - The Health Department's Third Military Medical University (第三军医大学) Chengdu Medical College (成都医学院)²⁷
 - The Health Department's Fourth Military Medical University Jilin Medical College (吉林医药学院)²⁸
- GLD organizations that were merged or re-subordinated:
 - The Quartermaster Department (总后勤部军需部) was merged with the Materials and Fuel Department (总后勤部物资油料部) to form the Quartermaster, Materials, and Fuel Department (总后勤部军需物资油料部).²⁹
 - The Health Department's PLA 304 Hospital (解放军 304 医院) was merged with the PLA 301 Hospital (解放军 301 医院), and then renamed the 304 Department, which is also known as the First Affiliated Hospital of the PLA General Hospital (解放军总医院第一附属医院).³⁰
 - The PLA 309 Hospital (解放军 309 医院) was merged with the 301 Hospital, becoming the Second Affiliated Hospital of the PLA General Hospital (解放军总医院第二附属医院); however, in 2009 it was re-subordinated to become the General Hospital of the PLA General Staff Department (解放军总参谋部总医院).³¹

²³ "Strengthen the Financial Management of the Armed Forces, The Establishment of a New Financial Mechanism of the 'Three-in-One' Network," *State Owned Assets Management* (国有资产管理), August 2002, p. 4-5.

²⁴ Information accessed at http://blog.sina.com.cn/s/blog_520e45d50100c7s1.html on 15 May 2012.

²⁵ Cheng and Xu, "Inside Story of PLA Logistics Reforms," p. 33-34, 36-38.

²⁶ The First Military Medical University is now named the Southern Medical University (南方医科大学). Cheng and Xu, "Inside Story of PLA Logistics Reforms," p. 33-34, 36-38. "Deputy Political Commissar Liu Yuan of the General Logistics Department of the Chinese People's Liberation Army," *Wen Wei Po* (文匯報), 10 January 2006.

²⁷ Ibid.

²⁸ Ibid.

²⁹ Xu Ping, "Is the General Logistics Department Quartermaster and Munitions Department a Department? (总后勤部军需部和军需生产部是一个部吗?)" *China Military Online*, October 2003, accessed at http://chn.chinamil.com.cn/wy/2011-09/20/content_4680435.htm on 12 May 2012.

³⁰ "General Logistics Department 302 Hospital Enter Barracks to Provide Health Services (总后勤部 302 医院走进军营送健康)," 13 November 2008, accessed at www.chinamil.com.cn/site1/xwpdxw/2008-11/13/content_1544919.htm on April 25 2012. "PLA General Hospital (中国人民解放军总医院)," accessed at www.301hospital.com.cn/ on 13 May 2012.

³¹ "PLA 309 Hospital (解放军第 309 医院)," accessed at www.309yy.com on 13 May 2012.

- In 2003, the General Office (办公室) and Strategic Planning Office (计划战略) of the Finance Department (财务部),³² Health Department,³³ and Military Transportation Department (军事交通运输部)³⁴ were merged to create a Comprehensive Planning Bureau (综合计划局) for each Department. The same merger likely occurred in the GLD Audit Office in October 2003 (总后勤部审计署).³⁵
- GLD organizations that were newly established:
 - The Quartermaster, Materials, and Fuel Department's Science and Technology (S&T) Training Equipment Bureau (科训装备局) also known as the S&T Training Bureau (科练局)³⁶
 - The Quartermaster, Materials, and Fuel Department's Military Production Engineering Finance Bureau (军产工程财务局)³⁷
 - The Health Department's Academy of Military Medical Sciences' Health Service and Medical Information Institute (卫生勤务与医学情报研究所)³⁸
 - The Health Department's Academy of Military Medical Sciences' National Bio-Protection Engineering Center (国家生物防护装备工程技术研究中心)³⁹
 - The Health Department's Compliance Services Bureau (履约事务局)⁴⁰
 - The Audit Office's Capital Construction Audit Bureau (基本建设审计局)⁴¹

³² “Ministry of Finance General Office on the Issuance of Accounting Qualification Examination Outline (Amendment Notice) (财政部办公厅关于印发会计从业资格考试大纲(修订)的通知),” 26 October 2009, information last accessed at www.mof.gov.cn/zhengwuxinxi/caizhengwengao/2009niancaizhengbuwengao/wengao200911qi/201002/t20100202_267442.html on 16 May 2012; “Thirty Years of Reform and Opening Up: Interviews with Authors of Selected Essays Submitted for the Essay-Writing Contest on the Theme of China's 30 Years of Reform and Opening Up,” *CCTV-7 Military* video, Notes from *CCTV-7 Military News* (CCTV-7 军事 农业), 4 December 2008. *China Military Logistics Encyclopedia*, Vol. 5, p. 83; and 2007 Interview with Chinese Official.

³³ *China Military Logistics Encyclopedia*, Vol. 5, p. 83. “(Wei Gao and the GLD Health Department Sign Civil-Military Integration Strategic Cooperation Agreement for the Construction of a Medical Material Guarantee System (威高与总后卫生部签署军民融合药材保障体系建设战略合作协议),” Weigao Holding Company, last accessed at www.weigaoholding.com/h/xwzx/topic-1423.htm on 14 May 2012.

³⁴ 2007 Interview with Chinese Official.

³⁵ *China Military Logistics Encyclopedia*, Vol. 13, p. 36-37.

³⁶ “Headquarters Command of Logistics Departments,” *China Military Logistics Encyclopedia*, Vol. 4, Beijing: Gold Shield Press, 2002, p. 35. “China Textile and PLA GLD Strategic Cooperation Department Held Meeting in Beijing (中纺协与解放军总后勤部战略合作交流座谈会在京举行),” 14 September 2011, accessed at www.texindex.com.cn/Articles/2011-9-14/242972.html on 14 May 2012.

³⁷ Ma Huijun, “Integrated Management System Study of Military Assets (军队资产一体化管理体制改革研究),” *Military Economic Research* (军事经济研究), 2010 No. 6. p. 37-40.

³⁸ “Health Service and Medical Information Institute (卫生勤务与医学情报研究所),” accessed at www.bmi.ac.cn/contents/15/724.html on 13 May 2012.

³⁹ Information last accessed at www.npec.org.cn/, www.npec.org.cn/sfzwasppid=4&keyno=20, and www.bmi.ac.cn/channels/16.html on 14 May 2012.

⁴⁰ Information accessed at <http://news.sina.com.cn/c/2003-08-11/0038539954s.shtml> and www.chinamil.com.cn/site1/jbzsc/2007-07/12/content_877051.htm on 15 May 2012.

⁴¹ “PLA Audit Office (解放军审计署),” accessed at www.4yjd.cn/historyshow.asp?id=3276 on 5 August 2012.

In addition to organizational restructuring, in 2003 Jiang Zemin announced that more than 10 categories of technical, managerial, and support positions would be replaced by civilian cadre (文职干部).⁴² While the PLA's civilian cadre system was officially established in 1988, it was not until June 2005 that the PLA was able to fully institute a professional corps separate from the military personnel system allowing the PLA to hire and fire talented personnel from the civilian sector without the overhead cost of their training, maintenance, and disposition. Many GLD professional positions were transitioned from military to civilian cadre billets as a result.⁴³

According to then GLD director Liao Xilong, from 2000 to 2005, the PLA made great progress in the implementation of many goals of the logistics support system reform plan. In addition to successes in implementing joint logistics programs, improving quality of life for PLA personnel, and overhauling financial management and procurement systems, the GLD had addressed redundancies within the logistics structure and the force had been sufficiently reduced.⁴⁴ From 2005 to 2012 additional organizational changes were limited to establishing leading groups and research centers to improve civil-military integration of support work, boost resource conservation, and improve technologies for medical and emergency services. Organizations which were established during this period include the following:

- Military Logistics Support Socialization Work Leading Group of the PLA (军队后勤保障社会化工作领导小组), established in 2006⁴⁵
- Military Resource-Saving Work Leading Group (军队资源节约工作领导小组), established in 2007⁴⁶
- The Quartermaster, Materials, and Fuel Department jointly established a National Military Food Mobilization Center (国家军用食品动员中心) with the Economic Mobilization Office (国民经济动员办公室) of the National Development and Reform Commission (NDRC) (国家发展和改革委员会) in 2007.⁴⁷

⁴² More information can be found on the civilian cadre system in the introduction chapter.

⁴³ Hao Yingquan and Li Xuanlian, "PLA Begins to Implement System of Non-Active Service Staff in 2006," *Xinhua Domestic Service*, 15 February 2006. CCTV-7, "Documentary for Military (军事纪事)," 22 June 2009.

⁴⁴ "China's National Defense in 2002," *PLA Daily* in English, 22 February 2002.

⁴⁵ "Military Support Socialization Will Launch—New Series of Initiatives (军队保障社会化将推出一系列新举措)," *PLA Daily* (解放军报), 3 March 2010. "Liao Xilong: Scientific Planning Promotes Logistic Protection and Other Protection Socialization (廖锡龙: 科学筹划推进后勤保障和其他保障社会化)," *PLA Daily* (解放军报), 1 March 2006. "Military Protection of Socialization Reform with Remarkable Results (军队保障社会化改革成效显著)," 3 November 2010, accessed at http://zqb.cyol.com/content/2010-11/12/content_3442576.htm on 13 May 2012.

⁴⁶ Luo Quan and Fan Juwei, "Liao Xilong Stresses Technological Innovation in Military Resource-saving Work," *PLA Daily* (解放军报), 17 February 2012. "Liao Xilong Lectures on Efforts to Save Military Resources Work Leading Group Conference, Efforts to Save Military Resources Presented Before Society as a Whole (廖锡龙在军队资源节约工作领导小组会议讲话要求, 努力使军队资源节约工作走在全社会前列)," *PLA Daily* (解放军报), 17 February 2012.

⁴⁷ Shao Chunyu and Fan Fuwei, "National Military Food Mobilization Center Established," *PLA Daily Online* in English, 21 May 2007.

- The Health Department's Academy of Military Medical Sciences established the State Key Laboratory of Pathogens and Biosecurity (病原微生物生物安全国家重点实验室) in 2005.⁴⁸
- The Logistics Engineering Academy (后勤工程学院) established the National Disaster Relief and Emergency Response Equipment Engineering and Technological Research Center (国家救灾应急装备工程技术研究中心) in 2009.⁴⁹

Since 2000, the GLD has undergone significant organizational change in both structure and composition. Not only is the GLD more streamlined, with less bureaucratic overlap, but the composition of its workforce has become a balance of civilian contractors, cadre, and military professionals. In the future, the PLA is likely to continue restructuring within the GLD with the goal of *decreasing manpower by leveraging the increased capacity of information systems*.⁵⁰ Reforms to PLA-wide research, development, procurement, and audit processes may result in some additional reorganization within related departments and possibly between the GLD and General Armament Department (GAD). In addition, the GLD will probably close the Capital Construction and Barracks Department Retired Cadres Housing Construction Bureau (老干部住房建设管理局) once retired cadre management programs have been fully transferred to government control in 2015.⁵¹ The future GLD will likely look significantly more integrated with the civilian sector at the strategic and operational levels, relying on civilian companies for procurement, transportation, fuel, provisions, and general logistics equipment development.⁵²

GLD Leadership

The GLD is led by a director and political commissar, who are co-equals, and the GLD headquarters is at a separate location from the GSD, GPD, and GAD. The GLD's director (部长) is a CMC member-grade officer (军委委员) with the rank of general (GEN/上将).⁵³ The director of the GLD is generally appointed to this position after having served as an MR commander and has an operational background, generally in the infantry or artillery. Many former directors have combat experience and have served as political commissars during their careers due to the historical interrelationship between the logistics and political disciplines within the PLA.⁵⁴ To date, no director of the GLD has a professional logistics background.

In November 2012 General Zhao Keshi (赵克石) was announced as the 12th director of the GLD at the 18th Party Congress. Zhao is 64 years old, making him one of the oldest of the new CMC

⁴⁸Information accessed at www.bmi.ac.cn/contents/16/982.html, and

www.bjkw.gov.cn/n1143/n1240/n1465/n242664/n242712/7794764.html on 28 April 2012.

⁴⁹ Liu Changjiang and Yuan Genglin, "China Sets up Research Center To Improve Equipment for Disaster Relief and Emergency Response," *PLA Daily* in English, 27 April 2010.

⁵⁰ "Spring Breeze of Reform Plays Main Theme of Logistics Construction -- Adjust Functions, Straighten Out Relations, Optimize Structure, Improve Efficacy," *PLA Daily* in English, 14 January 2009. Gao Zhiwen, Zhao Jianwei, and Ding Jidong, "Abstract of Focal Points," *PLA Daily Online* in English, 14 January 2009, p. 2.

⁵¹ "Important Measure To Promote the Arrangement and Management Work of Retired Cadres in the Military," *PLA Daily* in English, 3 November 2011.

⁵² Bian Junwei, Lu Yadong, and Lin Zhicheng, "Financial Support For PLA Logistics Construction (我军后勤建设财力保障探讨)," *Military Economics Research* (军事经济研究), July 2011, p. 64-65.

⁵³ For more information regarding grades and ranks see Appendix B of the Introductory Chapter.

⁵⁴ Susan M Puska, "The People's Liberation Army (PLA) General Logistics Department (GLD): Toward Joint Logistics Support," *The People's Liberation Army as an Organization*, Santa Monica: RAND, 2000, p. 270.

members. Zhao was commander of the Nanjing MR from June 2007 to 2012 and previously held the position of commander of the 31st Group Army when Xi Jinping was deputy secretary of the Fujian Provincial CPC Committee.⁵⁵ In addition to his ties to Xi, Zhao may have been selected based on his experience with enacting logistics reform. Nanjing MR appears to have been at the forefront of PLA operational logistics developments between 2001 and 2006. Many of the changes enacted were subsequently promulgated PLA wide after 2004. For example, the formation and operationalization of task-organized joint logistics units.

Zhao's predecessor was General Liao Xilong (廖锡龙). Appointed in 2003, he served until 2012, making him the longest standing and, at the age of 72, oldest GLD director in PLA history. A possible explanation for this extended tenure was the lack of combat experience within the senior leadership of the PLA.⁵⁶ Liao Xilong distinguished himself as a regiment commander in the Sino-Vietnam War of 1979.⁵⁷ Before assuming the current position, Liao served as the commander of the Chengdu MR from 1995 – 2002.⁵⁸

Liao's predecessor was General Wang Ke (王克) whom, prior to his appointment as director of the GLD from 1995 – 2003, was the commander of the Shenyang and Lanzhou MRs.⁵⁹

The GLD's political commissar (PC/政委) is an MR leader-grade (大区正职) officer with the rank of general. The current GLD PC is General Liu Yuan (刘源). Liu Yuan's assumption of the GLD PC position in 2011 is striking, as he was a 60-year old PC at the Academy of Military Science (AMS/军事科学院) at the time. Since 1979, the AMS PC position typically ended with retirement. Prior to his position at AMS, he served as a GLD deputy political commissar (DPC/副政委) from 2003 until 2005.⁶⁰ Since 1973, only one other GLD PC held GLD experience prior to entering the PC post: Hong Xuezhi (洪学智).⁶¹

⁵⁵ "Zhao Keshi Becomes Director of the GLD, 'Taking the Team' with Political Commissar Liu Yuan" (赵克石任总后勤部部长 与政委刘源"搭班子"), CQCB (重庆晨报), 26 October 2012.

http://cqcbepaper.cqnews.net/cqcb/html/2012-10/26/content_1582519.htm. "CMC Holds Ceremony for Promoting Generals" (中央军委举行晋升上将军衔仪式), 20 July 2010. Accessed at

<http://military.people.com.cn/BIG5/42967/12194218.html> on 16 November 2012 and Ma Haoliang, "Fang Fenghui, Zhang Yang Become 'Partners' Again (房峰辉张阳重新"搭檔")," Ta Kung Pao (大公报), 26 October 2012.

⁵⁶ "Liang Guanglie and Liao Xilong Separately Take Office as Defense Secretary and Chief of Staff, Taiwan Attack Preparations (梁光烈、廖锡龙分别就任国防部长、总参谋长,为攻台做准备)," 22 March 2008, accessed at http://bbs.tiexue.net/post2_2658147_1.html on 13 May 2012.

⁵⁷ "Shocking: Liang Guanglie Expresses Rage Against Foreign Affairs Department at Internal Conference (震惊: 梁光烈在内部会议上怒斥外交部软弱!)," 5 January 2012, *Chinese Military Fans* (中国军事迷网), accessed at www.milfans.com/2012/0105/42017_6.html on 13 May 2012. "Vietnam War-Produced Chinese Star General (越战中产生的中国著名上)," accessed at <http://blog.searchina.net.cn/log.asp?logid=158892> on 13 May 2012.

⁵⁸ "Vietnam War-Produced Chinese Star General (越战中产生的中国著名上)," accessed at <http://blog.searchina.net.cn/log.asp?logid=158892> on 13 May 2012. "Comrade Liao Xilong's Resume (廖锡龙同志简历)," *People's Daily Online* (人民网), accessed at www.people.com.cn/GB/shizheng/252/9667/9670/20021129/877930.html on 13 May 2012. "General Liao Xilong Introduction (廖锡龙上将简介)," accessed at <http://sjfm.xilu.com/lxl/> on 13 May 2012.

⁵⁹ "Wang Ke's Resume (王克简历)," 20 May 2005, *China News* (中国新闻网), accessed at www.chinanews.com/2002-05-20/26/186836.html on 13 May 2012.

⁶⁰ James Mulvenon and Leigh Ann Ragland, "Liu Yuan: Archetype of a 'Xi Jinping Man' in the PLA?" *China Leadership Monitor*, 2012, No. 36, p. 2-3. Liu Anyuan held a GLD PC position from 1987 until 1990, entering the

In addition to the director and PC, the GLD leadership also includes between three and five MR deputy leader-grade (副大军区职) deputy directors (DDIR/副部长) with the rank of lieutenant general (LTG/中将) or major general (MG/少将); and at least one MR deputy leader-grade DPC with the rank of lieutenant general or major general. Unlike the director of the GLD, the DDIRs are generally promoted from one of the various second-level departments subordinate to the GLD. Each DDIR is assigned specialized logistics functional “portfolios” which represent the various logistics systems. Two of the current DDIRs, Ding Jiye (丁继业) and Qin Yinhe (秦银河), were both appointed in 2007 and hold the rank of lieutenant general. Prior to their appointments as GLD DDIRs, Ding Jiye was the DDIR of the GLD Finance Department,⁶² and Qin Yinhe was the director of the PLA General Hospital (中国人民解放军总医院). Qin Yinhe served concurrently as the GLD DDIR and the director of the PLA General Hospital between 2007 and 2009, and before this was director of the Daping Hospital under the Third Military Medical University.⁶³ GLD DDIR Gu Junshan (谷俊山) and former director of the Capital Construction and Barracks Department was relieved for corruption in 2012.⁶⁴

According to one Chinese official, while the GLD and GAD are both CMC member-grade organizations, they are considered one-half grade lower than their GSD and GPD counterparts. However, the directors of the GLD and GAD are considered co-equals to the directors of the GSD and GPD. This discrepancy is likely intended to clearly subordinate support functions of armament and logistics support to the operational functions of combat. This subordination is

post the rank of major general (少将) with one star and was promoted to lieutenant general while at the post, overlapping with Hong Xuezhi who served as both GLD Director and as PC from 1980 until 1990, and who held the rank of general at the time. Hong Xuezhi had prior GLD experience before entering the GLD post, first serving as GLD DPC in 1954, followed by GLD DIR in 1957. Information accessed in *Chinese Communist Party Central Committee members from all previous sessions 1921–2003* (中国共产党历届中央委员大辞典 (1921—2003)), Beijing: Chinese Communist Party History Press, 2004, p. 393, 401, 724, 786, 660–662, 815, 951, and 960–961.

⁶¹ Hong stands out as the only PLA officer to receive the rank of general twice, first in 1955 and then again in 1988, and was called by some a “six-star general” (六星上将). He entered the GLD PC post with the rank of general. Information accessed in *Chinese Communist Party Central Committee members from all previous sessions 1921–2003* (中国共产党历届中央委员大辞典 (1921—2003)), Beijing: Chinese Communist Party History Press, 2004, p. 393, 401, 724, 786, 660–662, 815, 951, and 960–961, and accessed at <http://mil.hebei.com.cn/system/2011/04/19/011085889.shtml> on 10 May 2012.

⁶² “GLD Promoted Two Deputy Directors Ding Jiye in Charge of the National Defense Cost (总后晋升两副部长 丁继业分管国防军费),” 13 January 2008, accessed at www.stnn.cc/china/200801/t20080113_711782.html on 13 May 2012. “Ding Jiye’s Resume, Ding Jiye Introductory Materials (丁继业简历, 丁继业简介资料),” *Celebrity Network* (名人网), 13 February 2012, accessed at www.mingren365.com/gushi/jianjie/2012/0213/2903.html on 13 May 2012.

⁶³ “Li Shuzhang the PLA General Hospital Director (李书章任解放军总医院院长),” accessed on <http://blog.people.com.cn/open/articleFine.do?articleId=1318763791008> on 13 May 2012.

⁶⁴ “Gu Junshan No Longer Serves as General Logistics Department Director (谷俊山不再担任解放军总后勤部副部长),” accessed at <http://news.163.com/12/0211/07/7PVDHVCL00014JB5.html> on 13 May 2012. “General Logistics Department to Expand ‘Lecture Politics Overall Situation, and Discipline’ Educational Activities (总后机关展开”讲政治顾大局守纪律”学习教育活动),” *China Military Network* (中国军网), 11 February 2012, accessed at http://chn.chinamil.com.cn/head/2012-02/11/content_4786610.htm on 13 May 2012. “GLD Deputy Director Ding Jiye: Military Insurance Review and Outlook (总后副部长丁继业: 我国军人保险工作回顾与展望),” *PLA Daily* (解放军报), 7 May 2012, accessed on http://news.xinhuanet.com/mil/2012-05/07/c_123087224.htm on 13 May 2012.

clearly reflected in the grade difference between general department DDIRs. Deputy chiefs of the general staff within the GSD and the DDIRs of the GPD are MR leader-grade officers while the DDIRs of the GLD and GAD are MR deputy leader-grade officers, one full grade lower.⁶⁵

This GLD leadership forms the GLD Party Standing Committee (总后勤部常务委员会), which effectively carries out decision-making by consensus. The Standing Committee consists of the director, PC, DDIRs, DPCs, and select directors of second-level departments. In recent years, the director of the GLD serves as the Party Committee's secretary and the PC as the deputy secretary.⁶⁶

Liao Xilong also heads a number of PLA Leading Groups:

- Military Logistics Support Socialization Work Leading Group (军队后勤保障社会化工作领导小组): Established in 2006, the Leading Group is dedicated to further developing military-civilian integrated support through the outsourcing of military logistics tasks to the civilian sector such as food service, barracks management, communications service, and transportation support. This PLA Leading Group supports the efforts of the joint State Council and CMC leading group with the same name tasked with implementing military support socialization in the overall planning for national economic and social development and the special programs and annual work plans of the State Council. In addition to heading the PLA's leading group, Liao Xilong also serves as the first deputy leader of joint State Council and CMC leading group.⁶⁷
- Military Resource-Saving Work Leading Group (军队资源节约工作领导小组): Established in 2007, the Leading Group is dedicated to promote resource conservation through scientific and technological innovation and utilization efficiency.⁶⁸
- Environmental Protection and Afforestation Committee (全军环保绿化委员会) is the leading body for environmental protection and ecological work for the PLA. The committee develops the PLA's environmental protection and afforestation plans and supervises their implementation throughout the PLA. The GLD's Capital Construction and Barracks

⁶⁵ Interview with Chinese official, 2007.

⁶⁶ "Four PLA General Departments Earnestly Study, Comprehend Spirit of General Secretary Hu Jintao's Important Speech at Central Party School; Liang Guanglie, Li Jinai, Liao Xilong, and Chan Bingde Take Part in Discussions and Give Speeches," *PLA Daily* in English, 29 June 2007. "Party Committees of PLA General Staff, Political, Logistics, and Armament Departments Earnestly Study General Secretary Hu's Important Speech, with Chen Bingde, Li Jinai, Liao Xilong, and Chang Wanquan Separately Participating in Studies and Speaking," *PLA Daily* in English, 3 July, 2011.

⁶⁷ "Military Protection Socialization Will Launch—New Series of Initiatives (军队保障社会化将推出一系列新举措)," *PLA Daily* (解放军报), 3 March 2010. "Liao Xilong: Scientific Planning Promotes Logistic Protection and Other Protection Socialization (廖锡龙: 科学筹划推进后勤保障和其他保障社会化)," *PLA Daily* (解放军报), 1 March 2006. "Military Protection of Socialization Reform With Remarkable Results (军队保障社会化改革成效显著)," 3 November 2010, accessed at http://zqb.cyol.com/content/2010-11/12/content_3442576.htm on 13 May 2012.

⁶⁸ Luo Quan and Fan Juwei, "Liao Xilong Stresses Technological Innovation in Military Resource-saving Work," *PLA Daily* (解放军报), 17 February 2012. "Liao Xilong Lectures on Efforts to Save Military Resources Work Leading Group Conference, Efforts to Save Military Resources Presented Before Society as a Whole (廖锡龙在军队资源节约工作领导小组会议讲话要求, 努力使军队资源节约工作走在全社会前列)," *PLA Daily* (解放军报), 17 February 2012.

Department is the administrative body of the PLA Environmental Protection and Afforestation Committee.⁶⁹

- Patriotic Health Campaign Committee (全军爱国卫生运动委员会): Dedicated to promoting the physical and mental health of officers and soldiers in order to ensure combat effectiveness, improve the sanitation of military garrisons and camps, and comprehensively prevent disease throughout the PLA.⁷⁰
- GLD Discipline Inspection Commission (总后勤部纪委): Responsible for Party discipline inspection work within the GLD which is focused on punishing and preventing corruption among senior leaders as well as reporting to and implementing the directives of the CMC Discipline Inspection Commission.⁷¹
- Military Leading Group for Economic Responsibility Audits of Leading Cadres (军事领导干部经济责任审计领导小组): Established to strengthen supervision of middle and senior-level PLA officers. The Leading Group promulgated the “Implementation Method for Economic Responsibility Audits of Armed Forces Leading Cadres” to define the specific operation procedures for economic responsibility audits of leading cadres.⁷²

GLD Organization

The GLD is a CMC member-grade organization. It has a number of second-level administrative and functional departments which supervise specialized services, conduct functional planning, and coordinate with other national governmental and commercial organizations to ensure adequate resources and services are available to the PLA. Each second-level department is composed of third-level bureaus (直属局) as well as an assortment of work units (单位), such as research institutes, publishing houses, centers, and other offices. Each second-level department is a corps leader-grade (正军职) organization,⁷³ while their subordinate third-level bureaus are

⁶⁹ “A New Starting Point in the Continual Creating of Military Environmental Protection and Ecological Construction New Situation (在新起点上不断开创军队环境保护生态建设新局面),” *PLA Daily* (解放军报), 15 February 2012. “Earnestly Raise the Level of Armed Forces Environmental Protection and Ecological Construction (切实提高军队环保与生态建设水平),” *PLA Daily* (解放军报), 20 March 2009. “Chinese People’s Liberation Army Afforestation Regulations (Amended Draft),” *PLA Daily* in English, 11 August 2005.

⁷⁰ Fan Shunliang and Fan Juwei, “Liao Xilong Stresses on Healthy Development of Patriotic Health Work,” *PLA Daily Online* (解放军报网络版), 18 January 2010. Wu Baoli and Ju Weifan, “Continual Increase in Military Patriotic Health Work Quality Level (不断提高军队爱国卫生工作质量水平),” *China Military Network* (中国军网), 6 April 2012, accessed at http://jz.chinamil.com.cn/newscenter/zongbu/content/2012-04/06/content_4827995.htm on 13 May 2012.

⁷¹ Yan Wengang and Meng Jin, “Practice and Thoughts on Construction of System of Corruption Prevention in Field of Armed Forces Supply Procurement,” *Military Economics Research* (军事经济研究), Vol. 11, p. 49-51. Sai Zongbao and Teng Xiaodong “Firmly Advance the Establishment of a System for Punishing and Preventing Corruption within the Armed Forces – A Supervisor from the Discipline Inspection Department Under the General Political Department Answered Inquiries from the Reporters regarding the Implementation of a Working Plan for Establishing and Perfecting a System to Punish and Prevent Corruption within the Armed forces between 2008 and 2012,” *PLA Daily* in English, 28 October 2008, p. 8.

⁷² Liu Yunxi and Fan Juwei, “Appraisal Standards for Economic Responsibility Audits of Armed Forces Leading Cadres (军队领导干部经济责任审计评价标准),” *PLA Daily* (解放军报), 27 April 2010. “The Establishment of the Military Leading Group for Economic Responsibility Audits of Leading Cadres (全军领导干部经济责任审计工作领导小组成立),” *Xinhua* (新华), 20 July 2006, accessed at http://news.xinhuanet.com/newscenter/2006-07/20/content_4861650.htm on 13 May 2012.

⁷³ The corps leader-grade is sometimes referred to as *jun* leader-grade.

division leader-grade (正师职) organizations.

Some second-level departments are listed with a subordinate General Office responsible for daily administrative tasks for the leadership of the GLD and a Comprehensive Planning Bureau (综合计划局) responsible for synchronizing planning and support activities across the bureau; while in other cases only the Comprehensive Planning Bureau (综合计划局) is listed. It appears that in 2003, the General Office and Plans and Strategy (计划战略) Offices of some second-level departments were merged under a single Comprehensive Planning Bureau for each department. In 2010-2012 Chinese journal publications, many authors identify their professional organization as the General Office, therefore it is not possible to ascertain in all cases whether it is an independent third-level organization. In cases where there remains a question, we have listed the General Office as independent of the Comprehensive Planning Department.

Within the PLA, military academic institutions are jointly managed by several departments. The GSD provides training and policies, the GPD selects the faculty, and in cases of logistics institutions the GLD provides the curriculum. Some of these institutions provide specialized logistics training such medical, transport, and construction while others provide a more comprehensive logistics education. We have therefore listed the institutions under the second-level department which is most intimately involved in the training and curriculum for each academy.

Second-level departments of the GLD are listed in protocol order. However, due to limited information available on many of the third-level departments and bureaus, their protocol orders could not be confirmed. The GLD's second-level departments are as follows:

Headquarters Department (司令部)

The Headquarters Department is led by the GLD Chief of Staff (后勤参谋长) and is responsible for carrying out work based on the intentions of the logistics commanders. Its basic missions are to organize and coordinate logistics construction and logistics support; to organize and lead the deployment, maneuvers, and military administrative work of logistics organizations and subordinate units; to organize logistics training, scientific research, defense, and communications networks; and to carry out logistics command.⁷⁴

The following organizations are subordinate to the Headquarters Department:

- General Office (办公室): Oversees daily administrative tasks for the leadership of the GLD. These tasks include managing the flow of paperwork going to the GLD director and deputy directors, managing budgets and schedules for the GLD leadership, and performing other secretarial services. The General Office is staffed with a director and deputy director, as well as secretaries (秘书) who provide support to the GLD leadership.⁷⁵

⁷⁴ "Headquarters Command of Logistics Departments," *China Military Logistics Encyclopedia*, Vol.1, p. 275-276. Song Shilun and Xiao Ke Eds., "Logistics Command," *Chinese Military Encyclopedia*, Vol. 4, p. 87-88.

⁷⁵ Li Guiqing and Qian Shugen, eds., "General Office of the National Defense Mobilization Committee of China," *Chinese War Mobilization Encyclopedia*, p. 296.

- Operational Logistics Planning Bureau (战勤计划局): Formulates logistics support requirements and develops logistics support plans based on operations plans. The bureau also examines and verifies campaign logistics plans drawn up by campaign logistics staffs to ensure that the requirements plan coincides with the requirements of the campaign operational mission and is within the scope of strategic logistics support.⁷⁶
- Management and Equipment Bureau (军务装备局): While we were able to determine that the bureau is still active, there is no information available describing its responsibilities or activities.⁷⁷
- S&T Equipment Bureau (科技装备局): Responsible for overseeing the development of new technologies for logistics support as well as procuring logistics technologies from the commercial sector for military use.⁷⁸
- Military Training Bureau (军训局): Responsible for developing, organizing, and supervising logistics training for the entire PLA based on the plans established by the CMC and GSD.⁷⁹
- Labor and Personnel Bureau (劳动人事局): While there is evidence that the bureau is still active, no specific information is available on it since its move to the Headquarters Department in 2000. Based on its historical role, it is likely responsible for labor force management within the GLD.⁸⁰

⁷⁶ “China Dismisses Worries of Food Supplies for Armed Forces in Rescue Operations,” *Xinhua* (新华), 18 May 2008. Li Decai, “Modeling of Decision-Making in Strategic Logistics (战略后勤指挥决策模型化研究)” China Military Science Doctoral Dissertation Library (中国军事学博士文库), Beijing: National Defense University Publishing House, 2002. Information accessed at www.plaaf.net/html/90/n-1490.html on 28 April 2012. Qi Jidong, Deng Shuangquan, Li Jinhua, Wang Guiqiang, and Luo Shaofeng, “On Military Materials BMIS Management Mode (军用物资 BMIS 管理模式研究),” *Journal of Military Transportation University* (军事交通学院学报), 2011, No. 5, p. 1.

⁷⁷ “A contemporary military pursuit of life - Remembering the PLA General Logistics Command Military Affairs equipment,” Deputy Secretary Wen Shanzhong (一位当代军人的人生追求——记解放军总后勤部司令部军务装备局副局长温善忠),” 7 September 2010, accessed at <http://xy.sdut.edu.cn/3ASnews/ReadNews.asp?NewSID=1369> on 14 May 2012.

⁷⁸ Zhou Ming, Lin Songshan, Zheng Huhui, Wang Yu, Xu Dong, and Mao Yujie, “Clinical Research on the Impact of Periodontal Disease Prevention for Global Flight Crews (牙周病预防对环球飞行舰员牙龈炎影响的临床研究),” *People’s Military Surgeon* (人民军医), 2007, No. 6, p. 1. “Expected Promotion of Deputy Corps Commanders of Division-Level Cadres (有望晋升为副军职的正师级干部(2012.1)1),” Righteousness Network (正气网), 20 February 2012, accessed at <http://wangluohongren.wangluoliuxing.com/hongren-495cacfa010126ij.htm> on 13 May 2012. “Deputy Chief of Staff Li Kexin Major-General Visited the Exhibition,” 9 July 2011, www.bpsa.org.cn/IFPST2011/contents/477/2767.html, website of the 2011 the Chinese Military and Civilian Science and Technology Innovation and Development Forum accessed on 14 May 2014. “General Logistics Department Research Study,” 29 December 2011, www.fcqc.com/news_view.asp?id=9, website of Zhenjiang Speed Automotive Group Co. LTD. accessed on 14 May 2014.

⁷⁹ Wan Xiaoyuan, Cao Tingze eds., *Science of Strategic Logistics* (战略后勤学), Beijing: PLA Press, April 2001, p. 284.

⁸⁰ “Navy Anqing Hospital (海军安庆医院),” accessed at www.116yy.com/2006.asp on 13 May 2012. “Yichun City Continental Real Estate Development Co. Ltd. Qualification Information (宜春市五洲房地产开发有限公司执业资格信息),” January 2012, accessed at www.yichun.gov.cn/Pub/ZWGK/GCJSLYXXGK/CYRYXYXX/ZYZGXX/2012-01/201201041140532193.html on 13 May 2012. “Ministry of Labor of the People’s Republic of China Ministry of Personnel, National Bureau of Statistics, People’s Liberation Army General Logistics Department notice on the military labor and personnel work to strengthen business contacts with local authorities (中华人民共和国劳动部、中华人民共和国人事部、国家统计局、中国人民解放军总后勤部关于军队企业劳动人事工作同地方有关部门加强业务联系的通知)

8 September 1994, accessed at www.chinabaik.com/law/zy/0979/1419210.html on 13 May 2012.

- Communications and Automation Bureau (通信自动化局): Responsible for oversight and management of GLD communications systems and associated infrastructure. The name is shortened to Automation Bureau (自动化局) when abbreviated.⁸¹
- Confidential Bureau (机要局): While there is no specific information on the function of the GLD Confidential Bureau, based on like organizations throughout the PLA, the bureau is responsible for ensuring secure communications within the GLD and between the GLD and other government and military organizations. Functions likely include document classification; message encryption, decryption, and reporting; cipher management; information security; and cipher equipment maintenance.⁸²
- Foreign Affairs Bureau (外事局): Manages and coordinates logistics-related foreign contact activities for the GLD.⁸³

Other organizations subordinate to the GLD Headquarters Department include the GLD archives (总后档案馆),⁸⁴ Jindun Publishing House (AKA Golden Shield Publishing House/金盾出版社), and *Logistics* magazine (后勤杂志).⁸⁵

The Headquarters Department of the GLD is also responsible for the management of the servicemember support cards of the PLA in cooperation with the Industrial and Commercial Bank of China (中国工商银行), the China Construction Bank (中国建设银行), and the Agricultural Bank of China (中国农业银行股份有限公司).⁸⁶ These identity cards store critical data for each soldier used for personal identification as well as their medical records, housing records, uniform and equipment details, and meal allowances. The card is also a bank card through which personnel are paid and reimbursed for expenses. Introduced in 2001, the support cards and underlying information systems officially become compulsory PLA-wide in 2011 when information processing terminals were installed at all units above the independent battalion

⁸¹ “Lift People’s Spirits (把人民的利益高高托举),” 2000, accessed at www.chinamil.com.cn/item/sars/content/487.htm on 13 May 2012. Information accessed at www.e-mil.com.cn/n/20080113/110541.shtml on 14 May 2012.

⁸² “Party’s Loyal ‘Messenger’ -- Profile of Zhang Kunguo, Chief of Message Encryption, Decryption and Reporting Office of Shenyang Military Region Headquarters Department’s Confidential Bureau,” *Qianjin Bao* (前进报), 4 August 2008.

⁸³ Chinese People’s Liberation Army General Logistics Department Headquarters, *Science of Strategic Logistics*, p. 282. “Simultaneous interpretation - I am the Secretary to provide simultaneous translation services for international conferences (同声传译 -- 我司为国际会议提供同传翻译服务),” 2 November 2006, accessed at www.whsense.com/news_view.asp?newsid=117&topic on 14 May 2012.

⁸⁴ “Liu Yuan to Inspect the General Logistics Department’s Archives,” 16 July 2011, www.archives.org.cn/news.aspx?id=1747 accessed on 14 May 2012.

⁸⁵ Jindun Publishing House, “Publishing House Introduction (出版社简介),” accessed at www.jdcbs.cn/brief/briefCn.php on 13 May 2012. Jindun Publishing House, “Textbook Guide (购书指南),” accessed at www.jdcbs.cn/help/default.php on 13 May 2012.

⁸⁶ Yang Jianyong and Tang Xiangdong, “Serviceman Support Card Assumes Functions in Banking and Financial Service,” *PLA Daily Online* in English, 30 November 2009.

level.⁸⁷ There are at least two types of support cards – one for officers and non-commissioned officers (Type I card), and one for new two-year enlisted personnel (Type II card).⁸⁸

While not responsible for their administration, the GLD Headquarters Department also provides curriculum for the following PLA academic institutions:

- Logistics Command Academy (后勤指挥学院): Located in Beijing’s Haidian District, the academy trains and educates mid-level leadership and management officers, including the directors of administrative divisions within units, as well as logistics department staff members and instructors. The academy offers degrees in logistics command, logistics services, military supplies, medical support, military transportation, fuel management, infrastructure management, materiel distribution, finance and audit, and logistics political work.⁸⁹ The academy is capable of running logistics exercises and courses in real-time integrating multiple venues throughout China through its Simulation-Based Training Center (模拟培训中心).⁹⁰ The Logistics Command Academy also hosts the Logistics Science Research Institute (后勤科学研究所). The Logistics Command Academy is a corps deputy leader-grade organization.
- Logistics Engineering Academy (后勤工程学院): Founded in 1961, the academy is located in the Daping District of Chongqing. The academy provides from secondary technical specialties (e.g., 2-year GED for NCOs and 3-year associates degrees for NCOs and officers) to doctoral programs for technology and management officers in barracks and fuel infrastructure, logistics management, and warehousing specialties. Degrees are offered in construction management and civil engineering; information and automation; petrochemical, mechanical, and electrical engineering; warehousing and logistics management; logistics theory; and technology and equipment research. About 70 percent of PLA fuel and barracks system cadres are graduates of the academy. The academy is a national key university in the PLA “2110 Project” and home of the PLA’s Military Underground Construction Laboratory (军事地下建筑工程实验室).⁹¹ It publishes the quarterly *Journal of the Logistics Engineering Academy* (后勤工程学报).⁹² The Logistics Engineering Academy is a division leader-grade organization. The following research centers and institutes are under the academy:
 - National Disaster Relief and Emergency Response Equipment Engineering and Technological Research Center (国家救灾应急装备工程技术研究中心):

⁸⁷ Zhou Xiaopeng and Tang Xiangdong, “Mobilization Video-and-Teleconference on Deepening Application of Serviceperson Support Card Held,” *PLA Daily Online* in English, 13 October 2011.

⁸⁸ Zhang Junmin, “Serviceperson Support Card for Compulsory Servicepersons Officially Issued,” *PLA Daily Online* in English, 4 July 2011. Li Xiaoping and Cheng Wenxiang, “Accelerating Move Toward Informatization of Logistics Support Measures -- Reporter’s Q-and-A On Military Region Joint Logistics Department Leaders’ ‘Military Personnel Support Pilot Expansion’ Work (加快推进后勤保障手段向信息化迈进—军区联勤部领导就”军人障卡扩试”工作 答记者问),” *Zhanyou Bao* (战友报), 20 November 2008.

⁸⁹ Feng Liang and Ma Yongwei, “Logistics Command Academy of the CPLA (中国解放军后勤指挥学院),” *China Military Logistics Encyclopedia*, p. 259-262.

⁹⁰ Beijing *CCTV-7* in Mandarin, 9 November 2009.

⁹¹ Information accessed at www.hqgc.net, website of the Logistics Engineering Academy accessed on 12 May 2012.

⁹² Feng Xiaosong, “Training Course on Standards of PLA Field Oil Pipeline Systems Held,” *PLA Daily Online* in English, 28 November 2007.

China's first state-level scientific and technological research platform for the equipment used in disaster-relief and emergency response.⁹³

- Modern Logistics Engineering Institute (现代物流研究所): Established in January 1987, the institute began offering master's degrees in 1992 and Ph.D. degrees in 2003. Research areas include information technology, logistics engineering management, and cost control and optimization. It is responsible for the All-Army Supply Mechanization and Automation Society's Automation Special Committee (全军仓库机械化自动化学会自动化专委会).⁹⁴
- Building Design Research Institute (建筑设计研究院): See the Capital Construction and Barracks Department for additional details.
- Construction Engineering Research Institute (建筑工程研究所): See the Capital Construction and Barracks Department for additional details.
- Military Economics Academy (军事经济学院): The academy is a specialized school for training military economics management personnel from each of the PLA's services. The academy was founded in Heilongjiang Province but has since moved to its current location in Wuhan, Hubei Province. The academy offers academic programs in national defense economics, finance, logistics management, military supplies, and grassroots logistics leadership.⁹⁵ Military Economics Academy is a corps deputy leader-grade organization. The Military Economics Academy has four subordinate institutes, however, only information on the following is available:
 - Nourishment Institute/Nutritious Food Institute (营养食品研究所): Conducts research, development, and testing of various food processing and preparation methods for military use.⁹⁶
 - Quartermaster Equipment Research Institute (军需装备研究所): See the Quartermaster, Materials, and Fuel Department section for additional information.
 - Fuel Research Institute (总后油料研究所): See the Quartermaster, Materials, and Fuel Department section for additional information.

It is possible that the academy is also referred to as the Military Institute of Economics, though this cannot be confirmed. According to the *People's Liberation Army Daily*, the Military Institute of Economics manages the Center for Research of Anti-Corruption System for Military Economic Activity, which is dedicated to strengthening the building of a system for fighting corruption and promoting clean administration in key sectors.⁹⁷

⁹³ Liu Changjiang and Yuan Genglin, "China Sets up Research Center To Improve Equipment for Disaster Relief and Emergency Response," *PLA Daily Online* in English, 27 April 2010.

⁹⁴ Information accessed at <http://023-56.com/rencai/wlpx/2012-05-08/1426.html> on 9 May 2012.

⁹⁵ Yang Xiaoming and Su Jie, "GLD Promulgate New POL Consumption Standard for Military Planes," *PLA Daily Online* in English, 3 February 2009.

⁹⁶ Information accessed at www.oursteps.com.au/bbs/archiver/?tid-384309-page-3.html on 14 May 2012. "Mint is One of the World's Three Major Spices, Known as 'Asia's Spice,'" (薄荷是世界三大香料之一, 号称亚洲之香) 12 August 2011, www.shucaio01.com/News/Detail-17784.html, accessed on 14 May 2012.

⁹⁷ Liu Daxin and Li Bing, "PLA General Logistics Department [GLD] Sets up Center for Research of Anti-Corruption System for Military Economic Activity (总后成立军事经济活动预防腐败制度研究中心)," *PLA Daily Online* (解放军报网络版), 7 May 2011.

Political Department (政治部)

The Political Department is responsible for carrying out political work within the GLD. Responsibilities include leading party building, managing cadres, propagandizing, defending and working with the masses, and conducting liaison work.⁹⁸

The following organizations are subordinate to the Political Department:

- General Office (办公室): Oversees daily administrative tasks for the leadership of the GLD political department and coordinates activities of the various departments as required.
- Organization Department (组织部): Oversees and guides the activities of party organizations and party members to include the formation and selection of representatives for Party committees, branches, and congresses; overseeing the development of party members in the GLD.⁹⁹
- Propaganda Department (宣传部): Responsible for overseeing and implementing ideological education for GLD personnel, overseeing efforts to raise the professional and general education level of military personnel, and dissemination of political content to military personnel and the general public.¹⁰⁰
- Cadre Department (干部部): Manages officer personnel issues, to include officer salaries, training, promotions and assignments, and welfare issues. The Cadre Department is responsible for overseeing four types of personnel, which includes active-duty officers, civilian cadre, retired military officers, and reserve personnel.¹⁰¹
- Security Department (保卫部): Oversees the execution of security work to include the prevention of crime and theft of military secrets, carrying out criminal investigations, and handling some physical security.¹⁰²

⁹⁸ “The Outline for Ideological and Political Education Within the Chinese People’s Liberation Army (中国人民解放军思想政治教育大纲),” *PLA Daily Online* in English, 19 November 2009, p. 2. Qian Haihao, ed., *Lectures on the Study of the Organizational Structures of the Armed Forces*, Beijing: Military Science Publishing House, 2000.

⁹⁹ “Expected Promotion of Deputy Corps Commanders of Division-Level Cadres (有望晋升为副军职的正师级干部 (2012.1)1),” 20 February 2012, accessed at <http://wangluohongren.wangluoliuxing.com/hongren-495cacfa010126ij.htm> on 13 May 2012. Xi Jinping, “Speech at the National Meeting of Organization Department Heads (在全国组织部长会议上的讲话),” *Dangjian Yanjiu* (党建研究), January 2011, p. 4-11. Li Zengguang, “Political Departments,” in Song Shilun and Xiao Ke, eds, *Chinese Military Encyclopedia*, Vol. 4, p. 374-75. Li Yunzhi, “General Political Department,” in Song Shilun and Xiao Ke, eds, *Chinese Military Encyclopedia*, Vol. 4, p. 398-400.

¹⁰⁰ Zhou Ben, “Implement The Party’s Theory Of Innovation To Build Even Educating People The Fundamental Requirement Vigorously Strengthen The Primary Theoretical Work Of Arming The New Situation” (贯彻用党的创新理论建连育人根本要求大力加强新形势下基层理论武装工作),” *PLA Daily Online* (解放军报网络版), 29 December 2010, p. 2. Li Zengguang, “Political Departments,” in Song Shilun and Xiao Ke, eds, *Chinese Military Encyclopedia*, Vol. 4, p. 374-75.

¹⁰¹ Sai Zongbai, “Systems-Based Guarantee for Building a Contingent of High-Quality Staff Officers – Leader of Cadre Department of the General Political Department of the People’s Liberation Army Answers Reporters Questions Concerning the Staff Officer Evaluation and Assessment System,” *PLA Daily Online* (解放军报网络版), 1 April 2010. Li Yunzhi, “General Political Department,” p. 398-400, Li Zengguang, “Political Departments,” in Song Shilun and Xiao Ke, eds, *Chinese Military Encyclopedia*, Vol. 4 p. 374-75.

- Cadre Training Bureau (干部培训局): Responsible for the political training and development of military cadres.¹⁰³
- Discipline and Inspection Department (记检部 AKA 记录检查部): Responsible for Party discipline inspection work within the GLD which is focused on punishing and preventing corruption.¹⁰⁴

Finance Department (财务部)

The Finance Department is the head of the PLA's finance system that administers funding and conducts financial oversight over the entire PLA. The department has a key role in PLA budgeting. Budgeting units at each level within the PLA carry out studies to decide on their budget items, make calculations of their requests for funds, and then report to the next higher authorities. The GLD, working with the relevant departments of other general headquarters/departments, analyzes, calculates, and verifies the annual budget requests submitted by all the MRs, the Navy, Air Force, and Second Artillery Force, and draws up the defense budget. After being reviewed and approved by the CMC, the defense budget is submitted to the Ministry of Finance.¹⁰⁵

The following organizations are subordinate to the Finance Department:

- Comprehensive Planning Bureau (综合计划局): Coordinates among the various Finance Department bureaus in order to draft wartime and emergency financial support plans, identify fiscal requirements and shortfalls, produce reports for State Council subordinate organizations, and draft finance distribution plans. Often referred to as the Comprehensive Bureau (综合局).¹⁰⁶ This bureau appears to have absorbed the former General Office (办公室), responsible for daily administrative tasks for the leadership of the GLD Finance Department.¹⁰⁷

¹⁰³ “Ministry of Education and Other Seven Ministries on the Selection and Training of Military Cadres in Universities and Colleges to Carry Out Pilot Work,” 9 April 2011, <http://haijun.xaut.edu.cn/PoliceRefer/ShowArticle.asp?ArticleID=12>, accessed on 14 May 2012.

¹⁰⁴ Sai Zongbao and Teng Xiaodong, “Firmly Advance the Establishment of a System for Punishing and Preventing Corruption within the Armed Forces – A Supervisor from the Discipline Inspection Department Under the General Political Department Answered Inquiries from the Reporters regarding the Implementation of a Working Plan for Establishing and Perfecting a System to Punish and Prevent Corruption within the Armed forces between 2008 and 2012,” (扎实推进军队惩治和预防腐败体系建设——总政纪检部负责人就贯彻落实《建立健全军队惩治和预防腐败体系 2008-2012

年工作规划》答记者问) *PLA Daily*, (解放军报), 28 October 2008, p. 8. Yan Wengang and Meng Jin, “Practice and Thoughts on Construction of System of Corruption Prevention in Field of Armed Forces Supply Procurement,” *Military Economics Research* (军事经济研究), Vol. 11, p. 49-51.

¹⁰⁵ Information Office of the State Council of the People's Republic of China, “China's National Defense in 2006,” 29 December 2006. See section IX: Defense Expenditure.

¹⁰⁶ “Ministry of Finance General Office on the Issuance of Accounting Qualification Examination Outline (Amendment Notice) (财政部办公厅关于印发会计从业资格考试大纲(修订)的通知),” 26 October 2009, information last accessed at www.mof.gov.cn/zhengwuxinxi/caizhengwengao/2009niancaizhengbuwengao/wengao200911qi/201002/t20100202267442.html on 16 May 2012.

¹⁰⁷ Ibid.

- Military Finance Bureau (事业财务局): Little information is available on this bureau save that it is responsible for the scientific management of military finance.¹⁰⁸
- Wages and Benefits Bureau (工薪福利局): Oversees budgeting and payroll management for PLA personnel and retired cadres pay and benefits.¹⁰⁹
- Military Production Engineering Finance Bureau (军产工程财务局) AKA Military Production Finance Bureau: This bureau is responsible for supervising the transfer, replacement, sale or disposal of military assets as well as the budgets for the procurement and maintenance of military equipment and facilities.¹¹⁰ The bureau is also responsible for coordinating equipment and facility requisitions from the civilian sector.¹¹¹ This department absorbed the former Military Property and Enterprise Finance Bureau (军产企业财务局).¹¹²
- Servicemen Insurance Bureau (军人保险局): Administers insurance policies for current and retired servicemen. Leads the Servicemen Insurance Division (军人保险处), which falls beneath the Finance Departments of the PLA services and branches. Established a Military Policy-based Finance Organization Sub-Department (军队政策性融资机构分部), which is responsible for managing fund raising for military insurance, to ensure the appreciation of the insurance fund, for administering insurance policy payments, and developing military property insurance and military business insurance services.¹¹³

The GLD Finance Department also manages a Financial Account Settlement Center (财务结算中心) that likely manages funds collection and disbursements¹¹⁴ and a Financial Support

¹⁰⁸ Information accessed at www.4yjd.cn/historyshow.asp?id=3213 on 14 May 2012. Tian Xiaojun, “Achieve Military Scientific Funds Management,” *Military Economic Research* (军事经济研究), September 2011, p. 43-45.

¹⁰⁹ Information accessed at <http://bbs.junzhuan.com/thread-1376568-1-1.html>, <http://blog.ifeng.com/article/10617761.html>, <http://lt.cjdbj.net/thread-1106967-1-1.html>, and <http://shanghai.junzhuan.com/thread-1615282-1-1.html> on 14 May 2012.

¹¹⁰ Ma Huijun, “Integrated Management System Study of Military Assets (军队资产一体化管理体制改革研究),” *Military Economic Research* (军事经济研究), 2010, No. 6, p. 1. Zhang Hui, Sun Lingxiu, Zhu Junfeng, and Liu Yang, “Matrix Asset Disposal Regulatory Model Design (矩阵式资产处置监管模式设计),” *Military Economics Research* (军事经济研究), 2010, No. 6, p. 1.

¹¹¹ “PLA General Logistics Department to Push Forward Asset Management Reform,” *CCTV-7*, 30 December 2008. Information accessed at <http://wangluohongren.wangluoliuxing.com/hongren-495cacfa010126ij.htm> and www.sample.net.cn/cdoc/officer/20119161648554023.htm on 13 May 2012. “CMC and GLD Disaster Damage Relief Research Group Arrives to Investigate (军委总后灾损修复调研组来抚调研),” *Fuzhou Daily* (抚州日报), 17 July 2010, accessed at www.zgfznews.com/fznews/lingdaoxinxi/xiefaming/2010/7/17/527675.shtml on 15 May 2012.

¹¹² Ma Huijun, “Integrated Management System Study of Military Assets (军队资产一体化管理体制改革研究),” *Military Economic Research* (军事经济研究), 2010, Vol. 6, p. 1,7.

¹¹³ Sun Jinwen, Hu Yanchuan, and Qu Peng, “Military Insurance Foundation Shares Management Discussion (军人保险基金投资运营探讨),” 11 September 2011, *Thesis Network* (毕业论文网), last accessed at www.wybylw.com/securityfinance/fund/201109/27402.html on 22 June 2012.

¹¹⁴ Information accessed at www.4yjd.cn/historyshow.asp?id=3213 and www.chinavalue.net/Management/Blog/2011-11-25/857980.aspx on 14 May 2012.

Command Center (财务保障指挥中心) to provide cross-service financial support. This command center depends on the Account Settlement Center to allocate funds to units.¹¹⁵

Quartermaster, Materials, and Fuel Department¹¹⁶ (总后勤部军需物资油料部)

Formed in October 2003 from the GLD Quartermaster Department (总后勤部军需部) and the GLD Materials and Fuel Department (总后勤部物资油料部),¹¹⁷ the Quartermaster, Materials, and Fuel Department is responsible for providing food, clothing, materiel, and fuel support to the PLA. The department manages the production, procurement, storage, and distribution of military uniforms, personal combat equipment and daily use items, fuel, raw and processed foodstuffs, tents, camouflage materials, and field utilities like generators and water purification systems.¹¹⁸

In order to improve quality of supplies and reduce military expenditures, the GLD has, over the last decade, increasingly relied on commercial suppliers for the production of military materials. Between 1998 and 2002, many factories associated with the GLD were privatized and handed over to local state-owned enterprises. By 2005, *People's Liberation Army Daily* notes that all quartermaster factories had been handed over to civilian organizations, and 45 percent of military supplies, clothing, and accoutrements are ordered from civilian vendors through open tender.¹¹⁹ The department ensures the quality of military-use goods produced at civilian factories through Quartermaster Military Representative Bureaus (军需军事代表局) in Shenyang, Beijing, Lanzhou, Jinan, Nanjing, Guangzhou, Chengdu, Chongqing, Wuhan, and Xi'an.¹²⁰

The following organizations are subordinate to the Quartermaster, Materials, and Fuel Department:

- General Office (办公室): Oversees daily administrative tasks for the leadership of the Quartermaster, Materials, and Fuel Department and coordinates activities of the various departments as required.¹²¹
- Comprehensive Planning Bureau (综合计划局): Coordinates among the various bureaus in order to draft wartime/emergency materiel support plans, identify resource requirements and shortfalls, and identify economic mobilization requirements. Often called the Comprehensive Bureau for short (综合局), in August 1999 this bureau

¹¹⁵ Lian Heng, Mo Wenhua, and Fu Xu, "Research on Financial Support Alternatives in Sea Crossing Island Landing Operations (渡海登岛作战财务保障对策研究)," *Military Economic Research* (军事经济研究), March 2003, p. 67-68.

¹¹⁶ "Fuel" is often also referred to as "POL," which stands for "petroleum, oil, and lubricants."

¹¹⁷ Xu Ping, "Are the GLD Quartermaster Department and Quartermaster Production Department One Department? (总后军需部和军需生产部是一个部吗)," *China Military Online* (中国军网), accessed at http://chn.chinamil.com.cn/wy/2011-09/20/content_4680435.htm on 12 May 2012.

¹¹⁸ *Chinese Military Logistics Encyclopedia* (中国军事后勤百科全书), Vol. 4, p. 1-53.

¹¹⁹ Nie Zhonglin, "Remarkable Progress Made in PLA Logistics Socialization," *PLA Daily in English*, 11 April 2005.

¹²⁰ "'Military Documentary' and 'New Military Uniforms' (Below) Script (军事纪实之新军装(下)脚本)," 31 June 2007, *CCTV*, accessed at [News.cctv.com/military/20070731/112038.shtml](http://news.cctv.com/military/20070731/112038.shtml) and news.cctv.com/military/20070731/110816.shtml on 22 June 2012.

¹²¹ Information accessed at State Administration of Grain (国家粮食局) website, www.chinagrains.gov.cn/n16/n6994/n7046/n7321/4664560.html on 8 May 2012.

absorbed the responsibilities of the former S&T Training Bureau (科技训练局) and the former Planning and Finance Bureau (计划财务局) of the Quartermaster Department.¹²²

- Science & Technology Training Equipment Bureau (科训装备局) AKA S&T Training Bureau (科训局 AKA 科训局): Although the responsibilities of the S&T Training Bureau of the former Quartermaster Department were absorbed in August 1998, this bureau was re-established in October 2003 and is likely responsible for activities relating to equipment development and training.¹²³
- Provisions Bureau (给养局)¹²⁴: Manages the storage and distribution of military logistics equipment to include tents, generators, and clothing.¹²⁵
- Clothing and Accoutrements Bureau (被装局): Responsible for the administration of research, development, and production of military uniforms and individual equipment. Provides direction to the Quartermaster Equipment Research Institute (军需装备研究所).¹²⁶
- Bureau of Agricultural and Sideline Production (农副业生产局): Responsible for overseeing the management of PLA farms which are predominantly maintained by units stationed in remote areas where adequate food supplies are not available on local markets.¹²⁷ The bureau manages multiple Agricultural Supplies Terminals (农技物资总站) AKA Field Operation Military Provisions Supply Stations jointly with the State Administration of Grain, which are prepositioned storage sites where food may be delivered from military and civilian sources to support PLA units in the field. This reduced the required field messing equipment the PLA must deploy with and enables the PLA to inspect and ensure the safety and quality of food from civilian sources prior to distribution to troops.¹²⁸ The bureau also manages Agricultural and Sideline Science and Technology Service Centers (农副业科技服务站) which develop and test new agricultural technologies, processes, and products.¹²⁹ In 2007, the Quartermaster,

¹²² Information accessed at State Administration of Grain (国家粮食局) website www.chinagrains.gov.cn/n16/n6994/n7046/n7321/4664560.html on 5 May 2012.

¹²³ “Headquarters Command of Logistics Departments,” *China Military Logistics Encyclopedia*, Vol. 4, p. 35. “China Textile and PLA GLD Strategic Cooperation Department Held Meeting in Beijing (中纺协与解放军总后勤部战略合作交流座谈会在京举行),” 14 September 2011, accessed at www.texindex.com.cn/Articles/2011-9-14/242972.html on 14 May 2012.

¹²⁴ Qiu Dongqing, Wu Jun, “Establishment and Prospects Of Military Food Nutrient Enrichment Standards (军用食品营养强化标准的制订及其前景展望),” *Food Research and Development* (食品研究与开发), 2009, Vol. 5., p. 1. Gai Fang and Zhang Yi, “GLD Sends Engineering Maintenance Facilities To Support Yushu Quake Relief,” *PLA Daily Online* in English, 13 August 2010.

¹²⁵ Li Xiaomin and Tang Xiangdong, “GLD Goes All Out To Support Disaster Relief Work in Zhouqu,” 13 August 2010, *PLA Daily Online* in English.

¹²⁶ Information last accessed at <http://zhidao.baidu.com/question/328986968.html> 13 May 2012.

¹²⁷ Sui Yi and Fan Juwei, “PLA To Strengthen ‘Vegetable Basket’ Project,” *PLA Daily Online* in English accessed at www.chinamil.com.cn/site1/xwpdxw/2008-07/09/content_1354122.htm on 13 May 2012.

¹²⁸ Zuo Yun and Fan Juwei, “FOMPST Becomes New Provisions Support Mode for Field Encamping Training Troops,” *PLA Daily Online* in English. Information last accessed at http://eng.chinamil.com.cn/news-channels/china-military-news/2011-08/22/content_4654566.htm on 14 May 2012. Li Taifu, “Pleased and Hopeful – Agricultural Mechanization Division Leader Zong Jinyao and his Delegation Researching in Wuzheng (欣慰与希望——农机化司司长宗锦耀一行在五征调研),” *Contemporary Agriculture Journal of Shanxi Province* (山西农机), 2011, p. 29.

¹²⁹ Information accessed at www.bjhrtc.cn/html/View_1021.html on 14 May 2012.

Materials, and Fuel Department jointly established a National Military Food Mobilization Center (国家军用食品动员中心) with the Economic Mobilization Office (国民经济动员办公室) of the NDRC. The Center was formed to develop improved mechanisms by which the PLA could receive subsistence support from civilian sources.¹³⁰

- Factory Management Bureau (工厂管理局): Established in February 1999 under the former Quartermaster Department. In October 2000, the GLD's Production Management Department was downsized and its functions were transferred to the Factory Management Bureau.¹³¹
- Supply and Support Bureau (供应保障局): Manages rear depots and warehouses directly subordinate to the GLD.¹³²
- Imported Materials Management Bureau (物资进口管理局): Responsible for the procurement of materials from foreign suppliers. The bureau appears to manage the Military Imported Materials Tianjin Special Bonded Warehouse (军队进口物资天津特种保税仓库) and the Military Imported Materials Special Bonded Warehouse (军队进口物资上海特种保税仓库).¹³³
- Fuel Depot Management Bureau (油库管理局): Responsible for drafting regulations and standards for military fuel depot management, overseeing the management of strategic fuel depots, and identifying purchasing requirements.¹³⁴
- Fuel Supply Bureau (油料供应局): Responsibilities include administrating and revising standards for military fuel transportation equipment.¹³⁵
- Materials Procurement Management Bureau (物资采购管理局): Responsible for administration of military procurement, including publishing information bulletins for procurement specifications, inviting and selecting tender suppliers, selecting procurement evaluation experts, and administering quality inspection work.¹³⁶
- Quartermaster Military Representative Bureau (军需军事代表局): Oversees the quality of military-use goods produced at civilian factories to ensure compliance with contracts

¹³⁰ Shao Chunyu and Fan Fuwei, "National Military Food Mobilization Center Established," *PLA Daily Online* in English, 21 May 2007.

¹³¹ Xinxing Cathay International Group (新兴际华集团有限公司), "Historical Evolution (历史沿革)," accessed at www.xxig.com/jtgk/lsg/index.htm on 14 May 2012.

¹³² Information last accessed at <http://bbs.ahys.gov.cn/forum.php?mod=viewthread&tid=435815> on 14 May 2012. Li Xiaomin and Tang Xiangdong, "GLD Goes All Out To Support Disaster Relief Work in Zhouqu," *PLA Daily Online* in English, accessed at http://eng.chinamil.com.cn/special-reports/2010cmfm/2010-08/13/content_4281348.htm on 14 May 2012.

¹³³ Xie Yongfei and Liu Jia, "Chinese PLA Concludes 1st Independent International Bidding for Logistic Material Procurement," *PLA Daily Online* in English, accessed at http://eng.chinamil.com.cn/news-channels/china-military-news/2011-04/08/content_4418129.htm on 14 May 2012.

¹³⁴ "GLD Quartermaster, Materials, and Fuel Department Leaders Attend Cippe Petroleum Exhibition (总后军需物资油料部等领导莅临 cippe 石油展)," Cippe.net (全球石油化工网), information last accessed at www.cippe.net/news/68687.htm on 14 May 2012.

¹³⁵ Beijing *CCTV-7* in Mandarin, 30 December 2008. Information accessed at www.cqvip.com/QK/95846A/200601/20999024.html and www.caigou2003.com/news/interviews/guests/20111027/guests_203089.html on 13 May 2012.

¹³⁶ Information accessed at www.caigou2003.com/news/interviews/guests/20111027/guests_203089.html on 6 May 2012.

and standards.¹³⁷ Each bureau manages one or multiple Quality Control Stations for Quartermaster Products (军需产品质量检验总站).¹³⁸

- Fuel Military Representative Bureau (油料军事代表局): Responsible for overseeing the quality of fuel, oil, and other petroleum products for military use by commercial refineries to ensure compliance with contracts and standards.¹³⁹
- Domestic Materials Procurement Bureau (国内物资采购局): Responsible for administration of domestic military materials procurement, including publishing procurement regulations and information bulletins identifying procurement specifications. It is unclear how the responsibilities of this office differ from the Materials Procurement Management Bureau, however a September 2004 source identifies this bureau as active after the 2003 reorganization.¹⁴⁰

The Quartermaster, Materials, and Fuel Department also manages six Military Materials Procurement Bureaus (军用物资采购局), which are tasked with purchasing required materials and equipment from commercial suppliers. They manage bidding and contracting, calculate materials-related expenses, test and oversee materials quality, and organize the storage, forwarding, and delivery of materials.¹⁴¹ The Department also manages a competitive bidding site (www.chinabidding.com) which allows international companies to compete for PLA contracts for items like medical, engineering, and administrative equipment.¹⁴² The relationship between the Materials Procurement Management Bureau, the Domestic Materials Procurement Bureau, and these six Military Materials Procurement Bureaus is unclear, however it is clear that the two former bureaus have a regulatory role and the latter has an operational role. The six Military Material Purchasing Bureaus are as follows:

- Northeast Military Materials Procurement Bureau (东北军用物资订购局) located in Shenyang, Liaoning Province (MUCD 62401).¹⁴³

¹³⁷ Shi Meiwu, Wang Ni, Yu Wei, Hu Zhongzhao, and Zhang Yan, “The Analysis Methods for Cover-shelter Effect of Fabrics (面料的视觉遮蔽效果评价方法),” *China Fiber Inspection* (中国纤检), 2012, No. 2. p. 62-65.

¹³⁸ Zhang Qiang, Che Zhongchen, Ou Mingjiao, “Guard the Vital Interests of the Officers- General Logistics Department Quartermaster Military Representative Bureau’s Quality Supervision Office Inspection Director Liu Baoshan his Team Implement Rigid Transshipping Quality Controls Documentary (守护官兵的切身利益-总后军需军代局质处处刘宝钢和他的团队严把换装质检关纪实),” *Science and Technology Daily* (科技日报), accessed at www.stdaily.com/kjrb/content/2009-12/23/content_138159.htm on 14 May 2012,

¹³⁹ “The Evolution of America’s General Aviation Grease Standards (美国通用航空润滑脂标准的发展演变),” *Petroleum Products Application Research* (石油商技), 2011 Vol. 6, p. 30-34. Yang Liguo and Song Baoguo, “Administrative Officers Learn Political Work (行政主管学政工),” accessed at www.chinamil.com.cn/jfjbmap/content/2011-06/24/content_60809.htm on 14 May 2012.

¹⁴⁰ Information accessed at <http://public.chinautn.com/20071113/23367.html> on 15 May 2012.

¹⁴¹ *Chinese Military Logistics Encyclopedia*, Vol. 11, p. 42-43, 228. Shen Hao and Tang Xiangdong, “PLA Establishes 1st Regional Military-Civilian Joint Support System for Military Material Purchase,” *PLA Daily Online* in English, accessed www.chinamil.com.cn/site1/xwpdxw/2005-08/31/content_285193.htm on 14 May 2012.

¹⁴² Xie Yongfei and Liu Jia, “Chinese PLA Concludes 1st Independent International Bidding for Logistic Material Procurement,” *PLA Daily Online* in English, accessed at http://eng.chinamil.com.cn/news-channels/china-military-news/2011-04/08/content_4418129.htm on 14 May 2012.

¹⁴³ Information accessed at <http://bbs.jlu.edu.cn/cgi-bin/bbscon?board=Abroad&file=M.1273402683.A&num=6343> on 8 May 2012.

- North China Military Materials Procurement Bureau (华北军用物资订购局) located in Tianjin (MUCD 62402).¹⁴⁴
- East China Military Materials Procurement Bureau (华东军用物资订购局) located in Shanghai (MUCD 62403).¹⁴⁵
- South Central Military Materials Procurement Bureau (中南军用物资订购局) located in Wuhan, Hubei (MUCD 62404).¹⁴⁶
- Northwest Military Materials Procurement Bureau (西北军用物资订购局) located in Xi'an, Shaanxi (MUCD 62405).¹⁴⁷
- Southwest Military Materials Procurement Bureau (西南军用物资订购局) located in Chongqing (MUCD 62406).¹⁴⁸

The Quartermaster, Materials, and Fuel Department manages two subordinate research institutes:

- Quartermaster Equipment Research Institute (军需装备研究所), formerly known as the Research Institute for Military Supplies and Armament Technologies, was established in 1960 and is located in Beijing. The Institute specializes in research and development of military supplies and equipment. It primarily conducts research on combat uniforms and personal equipment, field rations and food preparation equipment, and bivouac equipment.¹⁴⁹ The GLD Quartermaster Equipment Research Institute is subordinate to the

¹⁴⁴ Information accessed at www.022net.com/2012/1-12/457136222229159.html on 8 May 2012. “Deputy School Director Sun Xiaolei (孙晓雷副校长),” Tianjin University of Traditional Chinese Medicine (天津中医药大学), last accessed at news12.tjutcm.edu.cn/bencandy.php?fid=36&aid=462 on 8 May 2012. Notes from *CCTV-7 Military News* (CCTV-7 军事 农业), “Military News.” *CCTV-7*, 26 May 2008.

¹⁴⁵ Information accessed at <http://xf.house.163.com/sh/0NXH.html> on 8 May 2012. “GLD Northeast Military Materials Procurement Bureau Standardizes the Process (总后华东军用物资订购局规范采购程序),” *PLA Daily*, last accessed at www.chinamil.com.cn/gb/pladaily/2001/12/17/20011217001182_todaynews.html on 14 May 2012. Information accessed at shzw.eastday.com/shzw/G/20110801/userobject1ai55362.htm on 14 May 2012. Shen Hao and Tang Xiangdong, “PLA Establishes 1st Regional Military-Civilian Joint Support System for Military Material Purchase,” *PLA Daily Online* in English, accessed www.chinamil.com.cn/site1/xwpdxw/2005-08/31/content_285193.htm on 14 May 2012.

¹⁴⁶ Huang Zhaohui, Work Hard to Improve Timeliness: GLD South Central Military Materials Procurement Bureau Successfully Organizes to Support Argentina Emergency Procurement (在提高时间效率上下功夫: 总后中南军用物资订购局成功组织援阿紧急采购), *China Logistics and Procurement* (中国物流与采购), 2002, No. 22, p. 33. and “Notice for the Provincial Department of Finance on the Issuance of ‘Hubei Province Interim Measures for the Integrity of Accountant Personnel Information Management (省财政厅关于印发《湖北省会计人员诚信信息管理暂行办法》的通知)” www.ecz.gov.cn/structure/hjks/hjkszw_36125_1.htm, accessed 23 August 2012.

¹⁴⁷ Zhang Wanshan and Wang Ming Kun, “Snow Mountain Oil Dragon: A New Look for the Gela Pipeline Renovation Project Procurement (雪山油龙”将换新装——格拉管线改造工程设备招标采购综述), *China Government Procurement* (中国政府采购), 2002, No. 7. p. 27-30.

¹⁴⁸ Gao Baoru “What You Want First: Concept of Entering the World (首先要”观念入世),” *Theoretical Studies on PLA Work* (军队政工理论研究), 2003, No. 4; and Gao Baoru, “On the Concept of Creating Learning-Type Leadership Classes (对创建学习型领导班子的构想),” *Journal of PLA Nanjing Institute of Politics* (南京政治学院学报), 2003, No. 2. 1

¹⁴⁹ Information last accessed at www.plapmic.org, www.chnfood.cn/college/colleges/institutions/show_15542.html 14 May 2012. “General Logistics Department’s Quartermaster Equipment Research Institute (总后军需装备研究所),” *Modern Weaponry* (现代兵器), 2007:7. “General Logistics Department’s Quartermaster Equipment Research Institute’s Continued Research (总后军需装备研究所持续攻关),” *PLA Daily* (解放军报), last accessed at www.chinamil.com.cn/jfjbmap/content/2010-05/31/content_29263.htm on 14 May 2012.

Military Economics Academy (军事经济学院).¹⁵⁰ For more information, see the GLD Headquarters Department section.

- Fuel Research Institute (总后油料研究所) is located in Beijing and conducts research on fuel storage and distribution equipment for the entire PLA. This includes research on automated fuel monitoring, testing, and distribution systems. Current fuel and oil equipment research tasks are aimed at integrating advanced communications, networking, ultrasonic, and optical fiber technologies into fuel equipment, fuel control platforms, and fuel depot information management systems.¹⁵¹ The GLD Fuel Research Institute is subordinate to the Military Economics Academy (军事经济学院). See the GLD Headquarters Department section for more information.

Health Department (卫生部)

The GLD Health Department is responsible for organizing, planning, coordinating, and directing medical services throughout the PLA. The department's tasks include formulating guiding principles, policies, regulations, and technical standards governing PLA medical services; drafting plans for peacetime medical services and wartime medical support; organizing and implementing military medical care; overseeing sanitation and epidemic prevention efforts, ensuring adequate quantities of medical supplies and equipment, and arranging training for all medical personnel.¹⁵²

The department is also responsible for organizing cooperative work between China and other countries concerning health issues; managing the all-Army health services research, medical periodical publications, and health information work; and managing the daily affairs of the All-Army Patriotic Health Campaign committee (全军爱国卫生运动委员会),¹⁵³ the All-Army Healthcare Leading Small Group (全军保健领导小组),¹⁵⁴ Commission of Medical Sciences and Technology of the Chinese People's Liberation Army (中国人民解放军医学科学技术委员会),¹⁵⁵ and the All-Army Family Planning Leading Small Group (全军计划生育领导小组).¹⁵⁶

¹⁵⁰ Su Yang, Lai Jun, and Du Shuguang, "Improve the Quality of Industry Apparel Product Specifications Nine Key," accessed at www.ctcc.net.cn/NewsDetail.aspx?id=454 on 14 May 2012.

¹⁵¹ "Top Visitors and Exhibitors at CIPPE2012 (顶级参观商齐聚 cippe2012)" accessed at www.ciooe.com.cn/2013/cn/News/ExhibitionNews/350.html, "PLA GLD Quartermaster, Materials, and Fuel Department Inspects Grid Refining (解放军总后军需物资油料部在格炼考察)" accessed at www.cnpc.com.cn/CNPC/xwzx/qydt/解放军总后军需物资油料部在格炼考察.htm on 6 May 2012, and "General Logistics Department Fuel Research Institute Unveils Post-Doctoral Research Station (总后油料研究所博士后科研工作站揭牌)," Xinhua (新华), last accessed at news.xinhuanet.com/mil/2009-01/12/content_10643860.htm on 14 May 2012.

¹⁵² *Chinese Military Logistics Encyclopedia* (中国军事后勤百科全书), Vol. 5, p. 1-9, 80-87.

¹⁵³ Pin Dao, "Military's Patriotic Work Continues to Improve the Quality of Water (不断提高军队爱国卫生工作质量水平)," *China Military Online* (中国军网), last accessed at http://jz.chinamil.com.cn/newscenter/zongbu/content/2012-04/06/content_4827995.htm on 14 May 2012.

¹⁵⁴ Information last accessed at www.wj-hospital.com/zjfc/14863.htm on 14 May 2012.

¹⁵⁵ Information last accessed at www.shczyk.com/jlkg/831.html and www.jfjyxxz.org.cn/Introduce/Default.aspx?ID=MagIntroduce on 14 May 2012.

¹⁵⁶ "Li Jinai Lectures at All-Army Family Planning Leading Small Group Conference on Requiring More Solid Advancements in Military Family Planning Work Science Development (李继耐在全军计划生育领导小组会议上

The following organizations are subordinate to the GLD Health Department:

- Comprehensive Planning Bureau (综合计划局): Oversees daily administrative tasks for the leadership of the Health Department and coordinates activities of the various departments as required. This organization has a subordinate General Office and may sometimes be called the General Office in publications.¹⁵⁷
- S&T Training Bureau (科技训练局): In 2003, assisted with assessment of SARS outbreak response.¹⁵⁸ The first reference to this bureau is in 2002 and most recent reference is in a Ministry of Science and Technology (MOST) statement from 2012.¹⁵⁹
- Hygiene and Epidemic Prevention Bureau (卫生防疫局), which is often shortened to (防疫局): *The bureau is responsible for the research, development, testing, and employment of epidemic prevention measures to prevent the spread of infectious diseases. Furthermore, it is responsible for providing health education and health technology guidance to military troops.*¹⁶⁰ The Bureau manages subordinate Hygiene and Epidemic Prevention teams and Health and Epidemic Inspection Institutes. In 2008, the Bureau implemented additional preventative measures for earthquake disasters.¹⁶¹
- Medical Administration Bureau (医疗管理局): Provides oversight of health care activities within the PLA, publishes regulations and directives for medical personnel in the area of medical support. A nickname for this may be the Medical Bureau (医疗局 or 医管局).¹⁶²

讲话要求更加扎实推进军队人口计生工作科学发展),” *PLA Daily* (解放军报), accessed at http://news.mod.gov.cn/headlines/2011-02/25/content_4226734.htm on 14 May 2012.

¹⁵⁷ “Thirty Years of Reform and Opening Up: Interviews with Authors of Selected Essays Submitted for the Essay-Writing Contest on the Theme of China’s 30 Years of Reform and Opening Up,” *CCTV-7 Military* video, Notes from *CCTV-7 Military News* (CCTV-7 军事农业), 4 December 2008. *China Military Logistics Encyclopedia* (中国军事后勤百科全书), Beijing: Gold Shield Press, 2002, Vol. 5, p. 83. “Wei Gao and the GLD Health Department Sign Civil-Military Integration Strategic Cooperation Agreement for the Construction of a Medical Material Guarantee System (威高与总后卫生部签署军民融合药材保障体系建设战略合作协议),” Weigao Holding Company, accessed at www.weigaoholding.com/h/xwzx/topic-1423.htm on 14 May 2012.

¹⁵⁸ Information at www.sars.ac.cn/log/show.php?id=162 last accessed 14 May 2012.

¹⁵⁹ *China Military Logistics Encyclopedia* (中国军事后勤百科全书), Beijing: Gold Shield Press, 2002, Vol. 5, p. 83. Information accessed at <http://wiki.zupulu.com/doc.php?action=view&docid=7232> and www.most.gov.cn/mostinfo/xinxifenlei/fgzc/gfxwj/gfxwj2012/201203/t20120323_93343.htm on 15 May 2012.

¹⁶⁰ *China Military Logistics Encyclopedia* (中国军事后勤百科全书), Beijing: Gold Shield Press, 2002, Vol. 5, p. 85.

¹⁶¹ “GLD Health Department Compiles and Distributes Prevention Formulas to Earthquake Relief Forces (总后卫生部编发抗震救灾部队防病口诀),” *PLA Daily* (解放军报), accessed at www.chinamil.com.cn/site1/xwpdxw/2008-05/19/content_1258747.htm on 27 April 2012. *China Military Logistics Encyclopedia* (中国军事后勤百科全书), Vol. 5, p. 100. “Contribute to Ensure we Have no Epidemics After the Disaster (为灾后无疫做贡献),” *PLA Daily* (解放军报), accessed at www.chinamil.com.cn/site1/xwpdxw/2008-05/20/content_1260232.htm on 15 May 2012. Information accessed at http://chn.chinamil.com.cn/zh/2010-01/06/content_4508644.htm and www.eszcdc.com/show.aspx?id=1091&cid=13 on 13 May 2012.

¹⁶² Information accessed at www.moh.gov.cn/publicfiles/business/htmlfiles/mohyzs/s3590/201111/53440.htm and http://health.youth.cn/yycj/201109/t20110930_1737376.htm on 28 April 2012. Information last accessed at

- Medical Supply Bureau (药品器材局): Responsible for procurement, production, and storage of medical supplies and equipment.¹⁶³ The bureau has at least one subordinate institute:
 - Drug and Instrument Control Institute (药品仪器检验所).¹⁶⁴ In recent years, the GLD has issued a series of policies that have made this institute the leader of the all-army medical equipment system. It is supported by the Military Region Drug and Control Institutes, (军区药品仪器检验所), and the regional health equipment maintenance stations (区域性卫生装备维修站). The Drug and Control Institute oversees the Pharmacology Office (药理室), the Medical Equipment Quality Assurance Office (卫生装备质量保证室), the Medical Equipment Technology Support Office (卫生装备技术保障室), the Electronic Equipment Testing Office (电子仪器检测室), as well as the Traditional Chinese Medicine Office (中药室). The Institute may also be referred to as the Institute of Inspection and Repair of Medical Instruments and Apparatus (医疗器械检修所), and the Drug Inspection Institute (药品检验所).¹⁶⁵
- Healthcare Bureau¹⁶⁶ (保健和计划生育局):¹⁶⁷ Manages the PLA hospital system to include national level hospitals, service hospitals, hospitals of the MR Joint Logistics Departments (JLDs), teaching hospitals (教学医院), sanatoriums (疗养医院), specialized medical centers (医学专科中心), clinics (门诊部), and physical examination detachments.¹⁶⁸
- Compliance Services Bureau (履约事务局): Little information is available on this bureau other than that it was first identified in August 2003, and was last identified January 2009.¹⁶⁹
- Information Center (信息中心): Responsible for the management of electronic medical records and the transmittal of health information for emergency treatment in

www.chemyq.com/health/ep136/1356505_4251A.htm and <http://wenku.baidu.com/view/a8073b136edb6f1aff001f33.html> on 15 May 2012.

¹⁶³ Jiang Wanliu and Du Xianzhou, “Five Days, Five Nights on Special Battlefield -- Preparations for Establishment of Beijing’s Xiaotangshan SARS Hospital (特殊戰場五晝夜——北京小湯山非典定點醫院籌備工作紀),” *PLA Daily* (解放军报), accessed at www.chinamil.com.cn/gb/pladaily/2003/05/02/20030502001048_todaynews.html on 15 May 2012.

¹⁶⁴ Information last accessed at www.showxiu.com/fan_yi/ 中国人民解放军总后勤部 on 15 May 2012.

¹⁶⁵ “All-Army Health Equipment Maintenance and Support Networking (全军卫生装备维修保障实现网络化),” 9 October 2011, *PLA Daily* (解放军报), accessed at www.mod.gov.cn/hospital/2011-10/09/content_4303111.htm on 22 June 2012.

¹⁶⁶ This bureau would typically be translated as “Family Planning Bureau.”

¹⁶⁷ Information accessed at www.bjhi.gov.cn/htmlTemplate/8a8a8bc32ed62e04012ed638ea1d000d.html on 2 May 2012.

¹⁶⁸ *China Military Logistics Encyclopedia*, Vol. 5, p. 81. Information accessed at www.bjhi.gov.cn/htmlTemplate/8a8a8bc32ed62e04012ed638ea1d000d.html on 2 May 2012.

¹⁶⁹ “Urgent Need of Special Drugs for Whole Army Poisoning Treatment for Elite Gathered at Qiqihar 203 Hospital (全军中毒救治精英齐聚齐市 203 医院急需特效药),” 11 August 2003, *Heilongjiang Daily* (黑龙江日报), accessed at <http://news.sina.com.cn/c/2003-08-11/0038539954s.shtml>. Information accessed at www.chinamil.com.cn/site1/jbzsc/2007-07/12/content_877051.htm on 15 May 2012.

- remote locations. On online sources, this center is still occasionally referred to by its former name - Health Statistics Information Center (卫生统计信息中心).¹⁷⁰
- Health Service Research Office (卫勤研究室): The Health Service Research Office was created by the GLD Health Department in the late 1970s. Its functions include research and validation of peacetime and wartime military health policies, regulations, organization, management, and integrated development.¹⁷¹
 - People's Military Medical Publishing House/Military Medical Press (人民军医出版社).¹⁷²

The GLD Health Department oversees the PLA's extensive network of hospitals, which provide medical treatment, supplies, and preventative medical care to the force. While the majority of these hospitals are administratively subordinate to the MR JLDs and PLA Services, the GLD Health Department directly oversees two Beijing-based Hospitals, the PLA 301 and 302 Hospitals as well as the Academy of Military Medical Sciences (军事医学科学院).

- The PLA General Hospital (中国人民解放军总医院), also known as the PLA 301 Hospital, is the most comprehensive medical support facility in the Chinese military.¹⁷³ The PLA 301 Hospital provides outpatient and inpatient treatment to senior PLA and political leaders to include foreign leaders such as the former North Korean leader Kim Jung Il.¹⁷⁴ The PLA 301 Hospital is also responsible for managing the Postgraduate Medical School (formerly Beijing Military Medical Academy) and conducting advanced medical research.¹⁷⁵ In 2004 the PLA 304 Hospital, which specializes in burn treatment,¹⁷⁶ was merged with the PLA 301 Hospital and was re-designated the 304 department also known as the First Affiliated Hospital of the PLA General Hospital.¹⁷⁷ In 2004, the PLA 309 Hospital which specializes in organ transplantation and tuberculosis research was also merged with the 301 Hospital, becoming the Second Affiliated Hospital of the PLA General Hospital, however in 2009 it was re-subordinated to become the General Hospital of the PLA General Staff Department (解放军总参谋部总医院).¹⁷⁸

¹⁷⁰ Information accessed at www.moh.gov.cn/sofpro/cms/previewjspfile/mohwsbwstjxxzx/cms_000000000000000272_tpl.jsp?requestCode=50701&CategoryID=8143 and www.crealifemed.com/Html/news/n3/2006-12/19/2006121906121901194374903434.html on 13 May 2012.

¹⁷¹ *China Military Logistics Encyclopedia*, Vol. 5, p. 125. Information accessed at www.chima.org.cn/pe/DataCenter/ShowArticle.asp?ArticleID=340 on 14 May 2012.

¹⁷² Information accessed at www.pmp.com.cn/ on 3 May 2012.

¹⁷³ *China Military Logistics Encyclopedia*, Vol. 5, p. 89.

¹⁷⁴ "General Secretary Kim Jong Il Planning Visit to PRC by End of August, May Notify Nuclear Test in Advance," *Sankei Shimbun*, 24 August 2006.

¹⁷⁵ Ge Rile and Guo Jianyue, "China's Medical Support for Spaceflight Develops," *PLA Daily Online* in English, last accessed at http://eng.mod.gov.cn/DefenseNews/2010-08/17/content_4185153.htm on 15 May 2012.

¹⁷⁶ Notes from *CCTV-7 "Military News"* (CCTV-7 军事 农业), "Military Report." CCTV Military News video, 20 November 2010.

¹⁷⁷ Information accessed at www.301hospital.com.cn/. "Jiang Zemin Convalesces at Yuquanshan Villa (江泽民 玉泉山别墅静养)," *Shijie Ribao Online* (世界日报), accessed at www.chinamil.com.cn/site1/xwpdxw/2008-11/13/content_1544919.htm on 25 April 2012.

¹⁷⁸ Information accessed at www.309yy.com on 15 May 2012.

- The PLA 302 Hospital (解放军第三〇二医院 AKA 中国人民解放军第 302 医院) is the PLA's only national level infectious disease hospital and serves as a national center for the research and treatment of liver diseases.¹⁷⁹ The hospital is also a post-doctoral training station and teaching hospital for masters and post-doctoral students and was designated as the PLA's training base for the prevention and control of infectious diseases in 2009.¹⁸⁰ The hospital has supported counter-terrorism and emergency response operations and exercises in cooperation with other PLA and PAP units.¹⁸¹
- Academy of Military Medical Sciences (AMMS) (军事医学科学院), founded in 1951, is the PLA's top medical research institution, commanded by a MG. Responsible for both military medicine and epidemic control, AMMS conducts research in surgery, hygiene, bacteriology, parasitology, epidemiology, physiology, biochemistry, pharmaceutical sciences, nutrition, pathology toxicology, and radiobiology. AMMS has 11 subordinate research institutes:
 - Military Veterinary Institute (军事兽医研究所): Established in 1982, the institute is the PLA's integrated veterinary science research unit focused on the prevention, control, and research of anthrax, tetanus, rabies, and other animal diseases.¹⁸²
 - Health Service and Medical Information Institute (卫生勤务与医学情报研究所): Established in 2003, the institute is the only organization in the PLA focused on the management and transmission of military health service information.¹⁸³
 - Institute of Radiology and Radiological Medicine (放射与辐射医学研究所): Established in 1958, the institute conducts research in radiation sickness and protection as well as radiological toxicology for nuclear weapon exposure.¹⁸⁴
 - Institute of Basic Medical Sciences (基础医学研究所): Established in 1978, the institute conducts research in basic medicine, clinical theory, and related technologies.¹⁸⁵
 - Institute of Hygiene and Environmental Medicine (卫生学环境医学研究所): Established in 1958, the institute focuses on improving wartime troop hygiene and health, sanitation, nutrition, high-altitude medicine, and food safety.¹⁸⁶
 - Institute of Microbiology and Epidemiology (微生物流行病学研究所): Established in 1958, the institute studies the pathogenesis of microorganisms, epidemiological studies, drug research, malaria prevention, and parasitology.¹⁸⁷

¹⁷⁹ "Military Report," CCTV Military News video, Notes from *CCTV-7 "Military News"* (军事报道), 5 November 2009.

¹⁸⁰ Jiang Wei and Dai Xin, "PLA Clinical Training Base for Prevention And Control of Infectious Diseases Established," *PLA Daily Online* in English, accessed at http://eng.mod.gov.cn/DefenseNews/2009-10/26/content_4097978.htm on 15 May 2012.

¹⁸¹ Information accessed at www.302hospital.com/index.php?id=110 on 3 May 2012.

¹⁸² Information accessed at www.bmi.ac.cn/contents/14/693.html on 3 May 2012.

¹⁸³ Ibid.

¹⁸⁴ Ibid. Information last accessed at <http://news.163.com/08/1124/19/4RHOL7FQ000120GU.html> on 15 May 2012.

¹⁸⁵ Ibid.

¹⁸⁶ Information last accessed at www.bmi.ac.cn/contents/15/721.html, www.ceas.org.cn/jgzj/ShowArticle.asp?ArticleID=2594, and <http://news.qq.com/a/20080328/003451.htm> on 15 May 2012.

¹⁸⁷ Information accessed at <http://ime.bmi.ac.cn/> on 3 May 2012.

- Institute of Pharmacology and Toxicology (毒物药物研究所): Established in 1958, the institute focuses on new drug formulation and synthesis, toxin detection, and plant chemistry research.¹⁸⁸
- Institute of Biotechnology (生物工程研究所): The institute does cellular, protein, and genetic engineering research aiding in vaccine development.¹⁸⁹
- Institute of Blood Transfusion (野战输血研究所): This institute works to increase blood transfusion safety.¹⁹⁰
- Institute of Disease Control and Prevention (疾病预防控制所): This institute deals with military disease prevention and hygiene information monitoring, education, policy consultation, and technology management.¹⁹¹
- Institute of Medical Equipment (卫生装备研究所): Established in 1958, the institute tests medicines and medical devices including medical kits, litters, mobile medical devices, ambulance and surgical vehicles, hospital shelters, and sterilization and water filtration systems.¹⁹² In addition, since its inception the AMMS Medical Equipment Research Institute has developed over 100 kinds of field medical equipment, received 80 National Scientific Progress Awards (国家科技进步奖), and according to a 2009 estimate, produces approximately 80 percent of the medical equipment used in the field.¹⁹³

The AMMS also manages the following organizations:

- PLA Hospital 307 (中国人民解放军 307 医院): Specializes in oncology, the treatment of acute radiation sickness, blood-related diseases, and the emergency treatment of chemical poisoning. The PLA 307 Hospital hosts the State Key Laboratory of Proteomics (蛋白质组学国家重点实验室) with the AMMS Institute of Radiology and Radiological Medicine, as well as the Pharmaceutical Chemistry Research Lab (药物化学研究室) and Biotechnology Research Lab (生物技术研究室).¹⁹⁴
- State Key Laboratory of Pathogens and Biosecurity (病原微生物生物安全国家重点实验室): Jointly managed by the AMMS Institute of Microbiology and Epidemiology and the Institute of Biotechnology. Established in 2005, the Lab does pathogen detection and identification research on bioterrorism agents and works with highly pathogenic

¹⁸⁸ Information accessed at www.bmi.ac.cn/contents/15/719.html and <http://duotai2012.86mai.com/> 3 May 2012.

¹⁸⁹ Information accessed at www.bmi.ac.cn/contents/15/717.html on 3 May 2012.

¹⁹⁰ Information accessed at www.bmi.ac.cn/contents/15/716.html on 3 May 2012.

¹⁹¹ Information accessed at http://news.xinhuanet.com/edu/2008-04/15/content_7974897.htm and www.bmi.ac.cn/contents/15/715.html on 3 May 2012.

¹⁹² Information accessed at www.globalb2b.asia/province-tianjin-yexiox.html and www.hcn2020.org.cn/index.php?doc-view-4710 on 3 May 2012. Wu Zhijun, Li Nan, and Liu Hongliang, "Science and Technology's Light Shines on 'Life's Heights' (科技之光照耀生命高地)," *PLA Daily* (解放军报), 20 August 2009, p. 12. "Military Report (军事报道)," 21 May 2008 and 31 May 2008, Beijing *CCTV-7*. Information accessed at www.bmi.ac.cn/contents/15/718.html on 3 May 2012.

¹⁹³ Wu Zhijun, Li Nan, and Liu Hongliang, p. 12. Information accessed at www.hcn2020.org.cn/index.php?doc-view-4710 and <http://baike.soso.com/v6308504.htm> on 3 May 2012.

¹⁹⁴ Information accessed at www.307hospital.com/ and www.bmi.ac.cn on 15 May 2012. Wang Shibin, "Xu Caihou inspects AMMS," 25 September 2009, *PLA Daily Online* in English, accessed at http://eng.chinamil.com.cn/news-channels/china-military-news/2009-09/25/content_4047890.htm and www.chinalab.gov.cn/labsite/Site/NewsPage.aspx?id=2131 on 28 April 2012.

organisms. This lab assisted in protection against a biological attack or disease outbreak during the 2008 Beijing Olympics and during the emergence of SARS.¹⁹⁵

- National Bio-Protection Engineering Center (国家生物防护装备工程技术研究中心): Established in 2003, it is China's only national-level research center for biological protective equipment (filters, suits, laminar flow hoods, HVAC) for the ability to quickly respond to terrorist attacks.¹⁹⁶

The GLD Health Department, while not responsible for their administration, provides curriculum to the following universities which provide specialized military training in clinical medicine, preventative medicine, health management, and nursing:

- Second Military Medical University (第二军医大学): Located in Shanghai, the university provides training in naval medicine, pharmacology, and foreign training.¹⁹⁷ Affiliated hospitals include Changhai Hospital (长海医院),¹⁹⁸ Changzheng Hospital (长征医院),¹⁹⁹ and Eastern Hepatobiliary Surgery Hospital (东方肝胆医院).²⁰⁰
- Third Military Medical University (第三军医大学): Located in Chongqing. In 2004, its Chengdu Military Medical Academy was turned over to the Chengdu government for management.²⁰¹ The university has three affiliated hospital - Southwest Hospital (西南医院),²⁰² Xinqiao Hospital (新桥医院),²⁰³ and Daping Hospital (大坪医院).²⁰⁴
- Fourth Military Medical University (第四军医大学): Located in Xi'an, Shaanxi Province, the university provides additional training in aviation medicine and biomedical engineering.²⁰⁵ It was formed by the merger of former Fourth Military Medical University (First Military Medical College) and Fifth Military Medical University (Third Military Medical College) in 1954.²⁰⁶ Its Jilin Military Medical Academy was transferred to local government control in 2004.²⁰⁷ The university's three affiliated hospitals are the

¹⁹⁵ Information accessed at www.bmi.ac.cn/contents/16/982.html and

www.bjkw.gov.cn/n1143/n1240/n1465/n242664/n242712/7794764.html on 28 April 2012.

¹⁹⁶ Information last accessed at www.npec.org.cn/, www.npec.org.cn/sfzwasp.asp?ppid=4&keyno=20, and www.bmi.ac.cn/channels/16.html on 14 May 2012.

¹⁹⁷ Wang Fuli and Li Yanzhong, "GLD Holds Emergent Medical Support Training Class for MOOTW," *PLA Daily Online* in English, 7 November 2009. Information accessed at www.smmu.edu.cn/english/SMMU_About_general.htm on 3 May 2012.

¹⁹⁸ Information last accessed at www.chhospital.com.cn/ on 4 May 2012.

¹⁹⁹ Information accessed at www.shczyy.com/chpage/c136/ on 4 May 2012.

²⁰⁰ Information accessed at www.ehbh.cn/ on 4 May 2012.

²⁰¹ Xiong Xueli and Chen Xiaoxia, "First PLA Medical Train Comes off Production Line," *PLA Daily Online* in English, 8 May 2008.

²⁰² Information accessed at www.swhospital.com/XNYYFore/default.aspx 3 May 2012.

²⁰³ Information accessed at www.xqhospital.com.cn/ on 4 May 2012.

²⁰⁴ Information accessed at www.dph-fsi.com/ on 4 May 2012.

²⁰⁵ Wang Shi'en and Ji Peng, "PLA Medical Center of Special Technologies Makes Steady Headway," 7 December 2009, *PLA Daily Online* in English. Information accessed at www.fmmu.edu.cn/ on 4 May 2012.

²⁰⁶ Information accessed at <http://en.fmmu.edu.cn/btdzw.jsp?urltype=tree.TreeTempUrl&wbtreeid=2438> on 4 May 2012.

²⁰⁷ Wang Shi'en and Ji Peng, "PLA Medical Center of Special Technologies Makes Steady Headway," 7 December 2009, *PLA Daily Online* in English.

Xijing Hospital (西京医院),²⁰⁸ Tangdu Hospital (唐都医院),²⁰⁹ and Stomatological Hospital (口腔医院).²¹⁰

In 2006, the GLD, the NDRC, and the State Food and Drug Administration began commissioning civilian enterprises to stockpile medicinal materiel for military wartime requirements. This allowed stocks to be rotated without a financial loss, ensuring a high level of combat readiness at all times.²¹¹

Military Transportation Department (军事交通运输部)

The head of the PLA's military transportation system (军事交通运输系统). Established in 1992, resulting from the merger of the former GLD Military Transportation Department and the former GLD Military Vessels Department,²¹² the Military Transportation Department's responsibilities include drafting the regulations, standards, rules, programs, and plans for PLA military transportation work, overseeing training of transportation units, overseeing the management of common-use vehicles and ground force maritime vessels, and managing military transportation costs. The Department is also responsible for organizing and coordinating national transportation war preparedness work, leading the MR and MD transportation strategies, drafting regulations and plans for building a national defense transportation road network, and national defense transportation materials storage.²¹³ The head of the Military Transportation Department serves concurrently as the head of the Transportation War Preparedness Office (交通战备办公室) of the National Defense Mobilization Commission (国家国防动员委员会).²¹⁴

The GLD's Military Transportation Department established and led a Traffic Joint Command Group (交通联合指挥组). During China's October 2009 60th Anniversary parade, the Traffic Joint Command Group was composed of representatives from the Beijing Department of Transportation, Beijing JLD, and service transportation offices. The Command Group was responsible for selecting transportation routes and coordinating with armed police and public security forces to guarantee safety and security along the parade route and supporting lines of communication.²¹⁵

There is surprisingly little information available after 2002 on the organizations subordinate to the Military Transportation Department which makes it extremely difficult to outline its composition. Based on the limited available information the organizations below are possibly subordinate to the Military Transportation Department:

²⁰⁸ Information last accessed at <http://xjwww.fmmu.edu.cn/> on 4 May 2012.

²⁰⁹ Ibid.

²¹⁰ Information last accessed at <http://kqwww.fmmu.edu.cn/structure/index> on 4 May 2012.

²¹¹ Zhang Hui and Fan Juwei, "Civilian Enterprises Commissioned To Stockpile Military Medicines for Combat Readiness," *PLA Daily Online* (解放军报网络版), 20 December 2006.

²¹² Information accessed at www.plapic.com.cn/txt/200810a/20081006A.htm on 8 May 2012.

²¹³ *China Military Logistics Encyclopedia*, Vol. 7, p. 1.

²¹⁴ Ren Min, *Science of National Defense Mobilization* (国防动员学), Beijing: Military Science Press, April 2008, p. 55.

²¹⁵ Information accessed at www.yutong.com/news/mediareports/10/2185.shtml on 13 May 2012.

- Comprehensive Planning Bureau (综合计划局): Responsible for coordinating the activities of the various subordinate departments to support operational requirements; develops comprehensive transportation plans, provides comprehensive reporting, assessments, and overall situational awareness of military transportation activities.²¹⁶ According to a Chinese official, the Transportation Department's General Office (办公室) and Plans and Strategy (计划战略) Office were merged into the Comprehensive Planning Bureau in 2003.²¹⁷
- Number 1 Transportation Bureau (第一运输局): Responsible for drafting regulations and oversight of military rail transportation, coordinating with Ministry of Railway (铁道部) authorities for military rail transport, and developing and supervising PLA-wide training in rail transportation planning, coordination, loading/unloading, and movement tasks. Other responsibilities may include overall management of PLA rolling stock and auxiliary equipment.²¹⁸
- Number 2 Transportation Bureau (第二运输局): Little information on this organization can be found later than 2005, though a Chinese official indicated it was still active as of 2007. The bureau is responsible for drafting regulations and oversight of military river and air transportation; coordinating with Ministry of Transportation (交通运输部) organizations including the Civil Aviation Administration of China (中国民用航空局), Water Transport Bureau (水运局), Changjiang River Administration of Navigational Affairs (交通运输部长江航务管理局)²¹⁹ and Zhujiang Administration of Navigational Affairs (交通运输部珠江航务管理局)²²⁰ for military inland waterway and air transport, and developing and supervising PLA-wide training in ship and air transportation planning, coordination, loading/unloading, and movement tasks. Other tasks may include overall management of PLA inland waterway vessels and port facilities.²²¹
- Number 3 Transportation Bureau (第三运输局) may also be referred to as the Motor Vehicles Bureau (车辆管理局): The bureau is responsible for drafting regulations and oversight of military motor vehicle transportation, coordinating with the Ministry of Transportation's Highway Bureau (公路局), Department of Road Transportation (道路运输司), and Public Security Bureau (公安局) for military road transport, and developing and supervising PLA-wide training in motorized transportation planning, coordination, and maneuver tasks. Other tasks may include overall management of PLA general use motorized vehicles.²²²

²¹⁶ Dang Chongmin, ed., *Staff Officer Work in Joint Operations* (联合作战参谋工作), Beijing: PLA Press, Aug. 2006, p. 105. Li Decai, *Modeling of Decision-Making in Strategic Logistics Command*, National Defense University Publishing House, 2002, p. 104.

²¹⁷ 2007 Interview with Chinese Official.

²¹⁸ Information accessed at www.csa.org.cn/ch/reader/download_pdf.aspx?file_no=20110301&year_id=2011&quarter_id=3&falg=1 on 13 May 2012. 2007 Interview with Chinese Official.

²¹⁹ Information accessed at www.cjhy.gov.cn/hangyundongtai/zhuanxiangongzuo/2010/2010_01_wenhua/wenhua6/201001/t20100129_145954.html on 15 May 2012.

²²⁰ Information last accessed at www.zjhw.gov.cn on 15 May 2012.

²²¹ Information last accessed at www.customs.gov.cn/tabid/419/InfoID/11843/frtid/509/SMid/1142/Default.aspx on 15 May 2012.

²²² 2007 Interview with Chinese Official.

- Vessel Transportation Bureau (船艇管理局): In a 2007 interview, a Chinese official identified the Vessel Transportation Bureau as an active organization subordinate to the Military Transportation Department responsible for ocean transportation, however, no other information can be found after 2002 that suggests that this bureau exists.²²³
- S&T Training Bureau (科技训练局 AKA 科训局):²²⁴ Supervises and evaluates transportation training for the entire PLA to include driving training and unit mobility training.²²⁵
- Transportation War Preparedness Bureau (交通战备局): Responsible for civil-military coordination to ensure that national transportation systems meet PLA wartime transportation requirements. Tasks include the coordination of national defense transportation projects such as road, rail, and port construction and accurate mapping of national transportation networks. The director of this bureau also serves as the Deputy Director of National Transportation War Preparedness Office (国家交通战备办公室).²²⁶
- Military Representative Bureau (军事代表局): There is currently no information available on a Military Representative Bureau directly subordinate to the Military Transportation Department. Military Representative Offices (MROs/军事代表室) and Military Representative Divisions (MRDs/军事代表处) are responsible for coordinating with government and commercial transportation agencies to support the PLA's transportation requirements. MROs are located at Ministry of Railways Rail Bureaus, Navigation and Shipping Administrations, and Airports.²²⁷ While the establishment of MROs is ultimately approved by the GLD Military Transportation Department there is insufficient data available to determine whether these MROs are managed by the Military Transportation Department or by MRs.²²⁸

The Military Transportation Department also has a subordinate National Defense Transportation Coordination Center (国防交通运输协调中心), publicly known as the Chinese Prudential Transport Corporation (CPTC/中华保得交通总公司). Formed in 1993, the coordination center deals with emergency support, combat readiness and national defense transportation needs. Tasks include the organization of railway transport, transportation warehousing, and

²²³ 2007 Interview with Chinese Official.

²²⁴ Information accessed at www.hzmzxxw.com/view.asp?classid=2&id=219 on 15 May 2012.

²²⁵ Tang Houyun, "Chengdu Military Region Unidentified Group Military Division Training Brigade Protective Health Training Documentary (成都军区驻渝某集团军司训大队防卫训练纪实)," *Science and Technology Daily* (科技日报), accessed at www.stdaily.com/oldweb/gb/stdaily/2007-02/15/content_635886.htm on 22 June 2012.

²²⁶ Information last accessed at http://dq.xxgk.yn.gov.cn/canton_model38/newsview.aspx?id=833389 on 15 May 2012.

²²⁷ "Military representative offices in Xi'an Railway Bureau," 22 June 2007, accessed at www.mot.gov.cn/st2010/jiangxi/jx.../t20100911_805641.html, 30 April 2009 website of the Ministry of Transportation on 13 May 2012. Information accessed at www.xiancn.com/gb/rbpaper/2007-06/22/content_1230823.htm on 13 May 2012.

²²⁸ China Water Transport Press Agency, "Nanjing Military Region Joint Logistics Department Major General Comes to Jiujiang River and Yangze River Vessel Service Military Representative Office to Inspect Work (南京军区联勤部少将来九江长江航务军事代表处视察工作)," 1 April 2011. Information accessed at www.zgsyb.com/GB/Article/ShowArticle.asp?ArticleID=97418 on 14 May 2012.

management of shipping vessels, fuel transport, and materiel transport.²²⁹ The center is likely subordinate to the Transportation War Preparedness Bureau. The center may also be called the GLD Traffic Center (总后军交运输中心).

While not responsible for their administration, the Military Transportation Department also provides curriculum for the following PLA academic institutions:

- Military Transportation Academy (军事交通学院): Established in 1973 and located in Tianjin. The academy is a corps deputy leader-grade organization and is the only academy within the PLA that trains military transportation senior engineering, leadership, and management personnel.²³⁰ The academy has programs in military transportation, vehicle command, vehicle engineering, and loading and transportation mechanics. The academy also manages the Military Transportation Research Institute (军事交通运输研究所) and Army Maritime Vessel Research Office (陆军船听研究室), which researches army maritime transport vessels.²³¹
- PLA Vehicle Management Academy (解放军汽车管理学院) Established in 1977, is a division-leader grade basic academy that trains motor vehicle transport leadership and management officers from the PLA motor vehicle units for all services. The academy is located in Bengbu, Anhui Province, and has academic specialties for motor vehicle element leadership and military transportation management.²³²
- PLA Zhenjiang Watercraft College (中国人民解放军镇江船艇学院):²³³ A division leader-grade organization located in Zhenjiang, Jiangsu Province. It is the ground force and air force's only basic academy for training army maritime vessel commanders and technical officers.²³⁴ The Academy has more than 10 teaching vessels, a full range of

²²⁹ Information accessed at www.jobuu.com/jobs/z117327.html, www.xiemaowang.com/detail/803214.html, www.wines-info.com/CompanySite/OIndex.aspx?c=19185, and <http://zhuzufei.fyfc.cn/art/355037.htm> on 15 May 2012.

²³⁰ The Military Transportation Academy was established in 1973 as the Transportation Technology School (运输技术学校), in June 1986 it became Transportation Engineering Academy (运输工程学院), and in June 1999 took on its current designation. *China Military Encyclopedia Second Edition*, Vol. 3, p. 714-715. Information accessed at zh.wikipedia.org/wiki/中国人民解放军军事交通学院 on 8 May 2012.

²³¹ Information accessed at <http://baike.baidu.com/view/104758.htm> on 8 May 2012 and www.jjxy.cn/, website of the Academy of Military Transportation, accessed on 13 May 2012.

²³² The PLA Vehicle Management Academy was established in December 1977 as the PLA Vehicle Management School (中国人民解放军汽车管理学校), and re-named the PLA Vehicle Management Academy in June 1986. In 1992, the academy was re-named GLD NCO School (总后士官学校), as it absorbed responsibility for all aspects of development work for the GLD Shiguan School, and then the current designation was re-instated in June 1993. *China Military Encyclopedia Second Edition* (中国军事百科全书第二版), Beijing: Encyclopedia of China Publishing House, 2007, Vol. 3, p. 715-716.

²³³ Note, the English translation varies for this organization, and uses “college” rather than “academy.” PLA Zhenjiang Watercraft College was originally the Ground Forces Vessel Technology School (陆军船艇技术学校), which was constructed at the PLA Vehicle Management Academy in June 1983. In June 1986 it became a separate school, in August 1992 it became the PLAN Zhenjiang Vessel NCO School (解放军海军船艇士官学校), in April 1995 the title Ground Forces Vessel School was re-instated, and in April 1999 it took on its current designation. During this period, the Academy was briefly transferred from the GLD to the PLAN from October 1992, but it returned to the GLD in May 1995. *China Military Encyclopedia Second Edition*, Vol. 3, p. 716-717.

²³⁴ *China Military Encyclopedia Second Edition*, p. 716-717. Information accessed at www.chinamil.com.cn/site1/2008a/2008-05/29/content_1288151.htm on 13 May 2012.

laboratories, and special-study rooms. The Watercraft Command Specialty has been designated as one of the priority disciplines under Project 2110 of PLA Academies and Schools and the Watercraft Power Engineering Specialty has been designated as part of Project 530 of the GLD.²³⁵

Capital Construction and Barracks Department (基建营房部)

The lead organization of the PLA infrastructure and barracks system (基建营房系统). The system is tasked with directing and supervising the construction and maintenance of military facilities and housing.²³⁶ This includes the mid-term and long-term planning, budgeting, design, and construction of military facilities; military property management; and coordination with non-military entities for construction and leasing programs. The department leads the PLA Environmental Protection and Afforestation Committee Office (全军环保绿化委员会办公室)²³⁷ which is responsible for pollution management and environmental protection in and around military facilities. The department also manages the All-Army Environmental and Engineering Quality Monitoring Center (全军环境与工程质量监测总站),²³⁸ the GLD Third Guest House (总后第三招待所)²³⁹, and publishes *Armed Forces Capital Construction and Barracks* (军队基建营房).²⁴⁰ According to the 2002 GLD Military Logistics Encyclopedia, the name of the department is translated as the “Capital Construction and Barracks Department”, but the logical translation is the “Infrastructure and Barracks Department.”²⁴¹

The following organizations are subordinate to the Capital Construction and Barracks Department:

- General Office (办公室): Oversees daily administrative tasks for the leadership of the Capital Construction and Barracks Department and coordinates activities of the various departments as required.²⁴²
- Comprehensive Planning Bureau (综合计划局): Coordinates among the various bureaus in order to draft wartime and emergency materiel support plans, identify resource requirements and shortfalls, and identify economic mobilization requirements.²⁴³
- Engineering Management Bureau (工程管理局): Responsible for planning, design, and supervision of PLA construction projects as well as coordination with other government and civilian entities in the construction of national defense facilities.²⁴⁴

²³⁵ “Military Report (军事报道),” *CCTV-7*, 08 May 2008.

²³⁶ *China Military Logistics Encyclopedia*, Vol. 12, p. 1.

²³⁷ Information accessed at www.douyar.com/article-7541-1.html, http://news.mod.gov.cn/headlines/2011-12/22/content_4329895.htm, http://chn.chinamil.com.cn/lh/2006-10/30/content_4550837.htm, and www.qsck.com/product_view.asp?id=26 on 15 May 2012.

²³⁸ Information accessed at www.chinamil.com.cn/site1/xwpdxw/2008-12/05/content_1573594.htm on 15 May 2012.

²³⁹ Information accessed at www.sxycsf.com/list_21/1059.aspx on 28 April 2012.

²⁴⁰ Information accessed at www.hbdawu.gov.cn/about/mingren/jj/6505.html on 16 May 2012.

²⁴¹ Information accessed at www.sinodefence.com/overview/organisation/gld.asp and <http://en.pkulaw.cn/display.aspx?cgid=83532&lib=law> on 15 May 2012.

²⁴² Information accessed at <http://news.qq.com/a/20120211/000075.htm> on 15 May 2012.

²⁴³ Information last accessed at http://blog.sina.com.cn/s/blog_495cacfa010126ij.html on 15 May 2012.

²⁴⁴ Information accessed at www.ccir.com.cn/detail.aspx?msgID=141337, www.mohurd.gov.cn/zcfg/jsbwj_0/jsbwjjzsc/201112/t20111214_207934.html,

- Barracks and Land Management Bureau (营房土地管理局): Acts as a property manager for all military land, buildings, and facilities. The bureau is responsible for drafting land and military property (real estate) utilization regulations; managing land and facility usage, modification, and improvements; and registration of leased and empty military property. Many of the duties of the Barracks and Land Management Bureau are carried out in cooperation with the Ministry of Housing and Urban-Rural Development (住房和城乡建设部) and the Ministry of Land and Resources (国土资源部).²⁴⁵
- Housing Construction Management Bureau (住房建设管理局): Responsible for the construction and management of military housing.²⁴⁶ According to the *People's Liberation Army Daily*, on 21 June 2007 the PLA began comprehensive barracks renovation for all brigade and regimental units. This renovation is expected to take nine years and cost one billion yuan annually to complete.²⁴⁷ It is likely that the Housing Construction Management is responsible for the management of these construction projects.
- Environmental Protection and Afforestation Training Bureau (环保绿化科训局): Responsible for drafting environmental protection regulations and plans, supervising environmental protection programs, and training personnel in related tasks. Programs include energy and water resource conservation and pollution reduction at military garrisons.²⁴⁸ The bureau also directs numerous landscaping programs intended to beautify and create more ecologically friendly military facilities. The bureau supports PLA camouflage, concealment, and deception programs by planting to conceal sensitive military facilities under a natural cover.²⁴⁹ Before 1996, Environmental Protection and Afforestation were two separate bureaus.
- Retired Cadres Housing Construction Bureau (老干部住房建设管理局): Responsible for the construction and management of housing for retired cadres.²⁵⁰

The Capital Construction and Barracks Department is also associated with two Logistics Engineering Academy (后勤工程学院) research institutes:

www.bjjs.gov.cn/publish/portal4/tab1153/info29825.htm, and
<http://wenku.baidu.com/view/1088df2b915f804d2b16c14b.html> on 8 May 2012.

²⁴⁵ “GLD Notice Recognizing Advancing Units and Individuals of the Quartermaster Warehouse (总后通报表彰全军后方军需仓库先进单位和先进个人)” *PLA Daily*, (解放军报), 7 January 2011, p.1. Information accessed at http://news.mod.gov.cn/headlines/2011-01/08/content_4218163.htm,

http://blog.sina.com.cn/s/blog_495cacfa010126ij.html and
<http://sjs.bjgtj.gov.cn/tabid/3937/InfoID/69300/frtid/3943/Default.aspx> on 8 May 2012.

²⁴⁶ Information accessed at http://blog.sina.com.cn/s/blog_520e45d50100smyc.html,
http://news.mod.gov.cn/headlines/2011-05/11/content_4241080.htm, and
<http://house.focus.cn/msgview/1328/164598616.html> on 8 May 2012.

²⁴⁷ Song Zhanglin and Fan Juwei, “PLA Initiates Comprehensive Barracks Renovation Project,” *PLA Daily* in English, 22 June 2007.

²⁴⁸ Information accessed at <http://house.focus.cn/msgview/1396/164598220.html> and
slpc.mwr.gov.cn/gzdt/201103/t20110307_255982.html on 15 May 2012.

²⁴⁹ Information accessed at www.chinamil.com.cn/site1/2006ztpd/2006-09/20/content_592507.htm,
www.chinamil.com.cn/site1/2006ztpd/2006-09/29/content_604096.htm,
www.chinamil.com.cn/site1/2006ztpd/2008-07/24/content_1377201.htm, and
http://chn.chinamil.com.cn/lh/2012-03/21/content_4816175.htm on 15 May 2012.

²⁵⁰ Information last accessed at <http://wenku.baidu.com/view/1088df2b915f804d2b16c14b.html> on 15 May 2012.

- Building Design Research Institute (建筑设计研究院): Established in 1950 and currently located in Wuhan, Hubei Province, the institute conducts the planning and construction design of military buildings, hospitals, warehouses, oil tanks, underground facilities, and pipelines.²⁵¹ The institute also does work for non-PLA entities. For example, it assisted in designing facilities for the 2008 Beijing Olympics as well as for civilian hospitals.²⁵²
- Construction Engineering Research Institute (建筑工程研究所): Established in the 1980s and currently located in Xi'an, Shaanxi Province, the institute is the only scientific research organization in the entire armed forces which carries out research and testing of equipment for field encampment, warehousing, and emergency repair and construction and military engineering camouflage technology. According to press reports, the institute employs just over 100 people and includes subordinate offices for encampment equipment research, and warehouse mechanization and automation research.²⁵³

Audit Office (审计署)

The GLD Audit Office (总后勤部审计署), or PLA Audit Office (解放军审计处) as it is more commonly known,²⁵⁴ is the leading organization within the PLA audit system (审计系统) under the supervision of the CMC. In the past it was known as the Audit Bureau (*shenji ju*; 审计局), but its name was changed in August 1992.²⁵⁵ The system conducts economic evaluation, ensures financial discipline, improves effectiveness of financial management, and promotes the development of military economic activities.²⁵⁶ In April 1995, CMC Chairman Jiang Zemin, issued the new audit regulations to regulate and standardize auditing of the military, and authorized 13 supporting rules in the following ten years.²⁵⁷

As of 2009, more than 20 ancillary military auditing system regulations existed, which covered different areas such as budget auditing, equipment auditing, and infrastructure construction.²⁵⁸

²⁵¹ Information accessed at <http://mall.cnki.net/magazine/Article/TMGC201111026.htm> and www.xici.net/d82335620.htm, www.yingjiesheng.com/job-000-529-143.html on 13 May 2012.

²⁵² Information accessed at www.cces.net.cn/tthy/display.asp?num=T-0004, <http://mall.cnki.net/magazine/Article/TMGC201111026.htm>, and www.xici.net/d82335620.htm on 15 May 2012.

²⁵³ Zhang Qiang and Tang Yongfeng, "New Starting Point, New Blueprint, New Development: General Logistics Department's Construction Engineering Research Institute's Start on Achieving Development by Leaps and Bounds During the 12th Five-Year Program," *Science and Technology Daily* (科技日报), 10 January 2012. Information accessed at www.zshg.com/zonghou01.htm on 15 May 2012. *China Military Logistics Encyclopedia*, Vol. 12, p. 10.

²⁵⁴ Note, a recent China Armed Forces bilingual publication referred to the Audit Office as the PLA Audit Commission. Jin Hao (金昊), "China's Military Auditing (中国军队的审计)," *China Armed Forces* (中国军队), 2010 No. 5, p. 52-54.

²⁵⁵ Although it became the Audit Office in 1992, this was officially recognized in article 7 of the "Chinese People's Liberation Auditing Ordinance (中国人民解放军审计条例)," issued 17 April 1995. Information accessed at www.audit.gov.cn/n1992130/n1992195/n1994111/n1994306/2321058.html on 15 May 2012.

²⁵⁶ *China Military Logistics Encyclopedia*, Vol. 12, p. 1.

²⁵⁷ Jin Hao, "China's Military Auditing (中国军队的审计)," *China Armed Forces* (中国军队), 2010 No. 5, p. 52-55. Note, although this special issue for the General Logistics Department provides English and Chinese versions of the articles, there were grave discrepancies between the two versions in terms of meaning; where discrepancies exist, our version relies on the Chinese version.

²⁵⁸ This information was taken from Google's 26 March 2012 cache of a 2009 press-release on a Chinese municipal government auditing bureau website, PLA Auditing Office Organization GLD System Audit Regulations Training

Audits generally focus on finding any irregularities associated with budgetary work, building projects, equipment procurement, investment, real estate projects, and profitable services.²⁵⁹ The office is also responsible for auditing the finances of officers in the PLA units at the same grade and below of the office.²⁶⁰

The military has three levels of auditing agencies: the PLA Audit Office, audit bureaus at every PLA “major unit” (大单位),²⁶¹ and audit offices at corps leader grade units. These military audit organizations are supported by various corporate audit organizations and audit firms.²⁶²

The Audit Association of PLA is the professional military group for the military’s registered auditors and audit firms. In December 1994, the GPD approved the establishment of the PLA Registered Auditing Affairs Association (中国解放军注册审计师协会). Later, on 17 August 2000, the GPD approved the change of the organization name to the current designation. It is responsible for resource inspection work, managing, and inspecting credentials for military audit firms and other personnel, organizing and scheduling personnel testing, expanding professional knowledge, and is responsible for information exchanges. It also coordinates relations with the state and local administrative organizations, and handles authorization matters for relevant departments and units.²⁶³

In recent years, the GLD has emphasized promoting the scientific development of military auditing, enhancing auditor capabilities, and organizing audit regulatory system training for GLD Audit Office leadership, key businesses, and relevant financial auditors. The GLD has given prominence to auditing tasks that involve: military readiness projects, weapons equipment, strategic resources reserves, and the economic responsibility of leading cadres, as well as improving the military audit organization’s oversight capacity for a variety of peacetime military operations, which include winning informationized conflicts (打赢信息化战争), border control, and earthquake relief.²⁶⁴ In 2009 the GLD Audit Office invited National Accounting Office personnel to share responsibility for the auditing of local economics (地方经济) and project investment (工程投资), and it may continue to assist in this capacity.²⁶⁵

(解放军审计署组织总后系统审计法规培训). The original webpage has since been taken down. The original link is www.fdsj.net/ztxt01view.asp?id=721, last accessed on 10 May 2012.

²⁵⁹ “More on China Setting Up Military Auditing Body to Examine 1,000 Officers in 2006,” *Xinhua* (新华), 20 July 2006.

²⁶⁰ *China Military Logistics Encyclopedia* (中国军事后勤百科全书), Vol. 13, p. 36.

²⁶¹ Liu Baoheng, *China Audit Yearbook* (中国审计年鉴), English, December 2005, p. 598-607. ; This term, “major units” (da danwei; 大单位) encompasses the CMC, Ministry of National Defense, PLA Services/Branches, each MR, MR grade military education institutes and research organizations, deputy MR grade organizations, the People’s Armed Police, and corps leader grade organizations serving deputy-military region leader grade posts. No audit bureau exists for the GPD. Information accessed at <http://club.xilu.com/xinguancha/msgview-950389-97222.html> on 24 August 2012.

²⁶² Jin Hao, “China’s Military Auditing (中国军队的审计),” *China Armed Forces* (中国军队), 2010 No. 5, p. 55

²⁶³ *China Military Logistics Encyclopedia*, Vol. 13, p. 39.

²⁶⁴ “PLA Auditing Office Organization GLD System Audit Regulations Training (解放军审计署 组织总后系统审计法规培训)” last accessed at www.fdsj.net/ztxt01view.asp?id=721 25 July 2012; *China Military Logistics Encyclopedia*, Vol. 13, p. 36-37.

²⁶⁵ *Ibid.*

The following organizations are subordinate to the Audit Office:

- Comprehensive Planning Bureau (综合计划局): Often abbreviated as the Comprehensive Bureau (综合局), this bureau was created 10 October 2003 and absorbed the Audit Office's former General Office (办公室) at that time.²⁶⁶ The bureau's responsibilities likely include drafting and issuing auditing laws, regulations, plans, programs, and reports; making arrangements to audit high-level PLA officers; coordinating PLA-wide audit structure; managing PLA-wide auditing training and evaluation; and managing correspondence and filing of relevant documents.²⁶⁷
- Operations Audit Bureau (事业审计局): Responsible for auditing cost of living payments, public affairs, operations, education and training, fuel, and strategic combat expenses (战略作战费); auditing the Finance Calculation Center (财务结算中心) and expenses associated with storing, using, and managing materials; and auditing the operating expenses of leading officers of the four General Departments and their directly managed work units.²⁶⁸
- Equipment Auditing Bureau (装备审计局): Responsible for auditing the expenses associated with military weapons and logistics equipment purchases, equipment maintenance and repair, scientific research, special equipment fees, strategic materiel storage, foreign military aid for military sales, external reporting, and equipment purchase contracts. The office is also responsible for auditing the equipment expenses of leading officers of the four General Departments and their directly managed work units.²⁶⁹
- Capital Construction Audit Bureau (基本建设审计局): Created in October 2003, it likely absorbed some of the responsibilities of the former Engineering Enterprise Audit Bureau (工程企业审计局), making it responsible for auditing expenses related to capital construction for the entire PLA, including expenses related to capital construction plans, programs, auctions, contracts, construction preparations, drafting and engineering materials management.²⁷⁰

Military Audit Firms (解放军审计事务所): Audit firms receive management, direction, and oversight from the military's auditing departments, and at the same time, receive operational guidance from the state's Institute of Certified Public Accountants (国家注册会审计师会). The military audit firm supports aspects of military financial service work, including: quality, service support, and policy.²⁷¹

²⁶⁶ Information accessed at <http://sjs.eksw.net/article/ksfd/2011-09-15/12144.html> 5 August 2012.

²⁶⁷ *China Military Logistics Encyclopedia*, Vol. 13, p. 36.

²⁶⁸ Hu Lixue, Tian Fujun, and Yao Lixin, "Briefly on The Auditing System of Troops Acquisition (军队采购审计体系初探)," *Military Economics Research* (军事经济研究), 2003, Vol. 7, p. 62-63.

²⁶⁹ Ibid

²⁶⁹ *China Military Logistics Encyclopedia*, Vol. 13, p. 38.

²⁷⁰ Information accessed at <http://sjs.eksw.net/article/ksfd/2011-09-15/12144.html>, and *China Military Logistics Encyclopedia*, Vol. 13, p. 37.

²⁷¹ *China Military Logistics Encyclopedia*, Vol. 13, p. 37.

Logistics Bases

The GLD has two directly subordinate national level logistics bases responsible for materiel stockpiling and providing strategic logistics support to commands throughout China. Both bases are corps leader-grade organizations led by a LG or MG.²⁷² In addition to their wartime missions, both bases provide material support to domestic social stability, humanitarian assistance, and disaster relief operations.²⁷³

- Wuhan Rear Base (武汉后方基地) is responsible for providing strategic material support to the entire PLA. The base has a number of subordinate units that control motor transport, weapons, fuel, materiel, and munitions depots spread throughout central China in Henan, Hubei, Hunan, and Shanxi Provinces. The base also has subordinate technical support units, training groups, hospitals and medical support teams, the 49th Motor Transport Regiment which provides strategic transport support, and a communications station.²⁷⁴ The base manages a war readiness command network and a joint logistics support network, which links the GLD command center, base organizations, and its many depots.²⁷⁵ Units associated with the base are assigned the MUCDs which fall between 62101 and 62199.²⁷⁶
- The Qinghai-Tibet Depot (青藏兵站部) is responsible for the transportation of goods and materials, maintaining oil pipelines and fiber optics lines along the Qinghai-Tibet Highway (青藏公路). The base has a number of subordinate motor transport, dual-use units stationed along the highway that transport over 80 percent of material and fuel to

²⁷² Information accessed at wenda.tianya.cn/wenda/hread?tid=0c1f08048654319c and www.cnr.cn/junshi/ztl/lh/dbwyxs/201003/t20100311_506141767.html on 13 May 2012.

²⁷³ Information accessed at <http://bbs.ahys.gov.cn/forum.php?mod=viewthread&tid=435815> on 13 May 2012. Li Xiaomin and Tang Xiangdong, “GLD Goes All Out To Support Disaster Relief Work in Zhouqu,” *PLA Daily Online* in English. PLA General Logistics Department Military Services Station on Qinghai-Tibet Highway Assists Public Security Police, Armed Police Forces in Maintaining Social Stability, Harmony in Local Areas http://eng.chinamil.com.cn/special-reports/2010cmfm/2010-08/13/content_4281348.htm and http://chn.chinamil.com.cn/jsfz/2011-12/21/content_4747146.htm on 15 May 2012.

²⁷⁴ Information accessed at www.cgw.cn and “The General Logistics Department, an expert mission to Wuhan rear base for the intelligence services,” on 13 May 2012 at www.chinamil.com.cn/site1/xwpdxw/2009-06/09/content_1792344.htm, and www.wwgc.cc/luntan/viewthread.php?tid=80838&page=4 on 13 May 2012. “PLA General Logistics Department’s Wuhan Rear Base Organizes 100-Odd Principal Military Commanding Officers for Centralized Military Training Conducted in Line With Updated Military Training Outline,” *PLA Daily Online* in English. Fan Juwei, Li Yong, and Kuang Xiaowen, “Rear Base of GLD Provides Massive Support of Disaster Relief Materials,” accessed at www.chinamil.com.cn/site1/xwpdxw/2009-05/28/content_1778894.htm on 13 May 2012. “GLD Certain Vehicle Depot Takes Measures to Improve Personnel Quality (总后某汽车仓库多措并举提高人员素质),” accessed at www.chinamil.com.cn/site1/xwpdxw/2007-06/15/content_847179.htm on 13 May 2012. “PLA General Logistics Department Wuhan Rear Base Arms Depot Senior Engineer Chen Yongxiang Profiled, Praised for Dedication, Professionalism,” 15 June 2007, accessed 13 May 2012 at tp.chinamil.com.cn. “General Logistics Department Base Holds Strategic Support Exercise,” *PLA Daily*, 7 October 2006.

²⁷⁵ Hu Junhua (胡君华) “The General Logistics Department Wuhan Rear Base Headquarters Strengthen Informatization” (总后武汉后方基地司令部加强信息化建设纪实), *Xinhua* (新华), 8 December 2004, last Accessed 17 November 2012 at http://news.xinhuanet.com/mil/2004-12/08/content_2307707.htm.

²⁷⁶ Information accessed at www.wwgc.cc/luntan/viewthread.php?tid=80838&page=4 on 13 May 2012.

PLA units and civilian companies stationed in Tibet.²⁷⁷ Units associated with the base are assigned the MUCDs which fall between 62201 and 62271.²⁷⁸

The Nenjiang Base (嫩江基地) in Heilongjiang Province and the Chenhu Base (沉湖基地) in Hubei Province were major GLD agricultural enterprises dating back to the 1960s. Both bases were turned over to local government control in 2001. Many of the assets of these bases included facilities, buildings, and utility vehicles were sold or turned over to enterprises in the surrounding areas. As of 2012 the bases still serve as state grain reserves managed by the provincial governments.²⁷⁹

In addition to the national-level logistics bases, each service also maintains their own rear bases that are responsible for strategic stockpiles of materiel.²⁸⁰

²⁷⁷ “Military News.” *CCTV-7 Military News* video, Notes from *CCTV-7 Military News* (CCTV-7 军事 农业), 24 December 2009. *PLA Daily* (解放军报), 1 April 2009, p.4.

²⁷⁸ Information accessed at www.gem.gov.cn/News/Show.asp?id=2113, website of the Golmud City Office, 2007/8/31 and www.kunluncao.com/dx/forum.php?mod=viewthread&tid=3757 on 13 May 2012

²⁷⁹ Information accessed at www.tianmen.gov.cn/root10/xzbcq/0128/200904/t20090421_25297.html, website of the Tianmen Peoples Government, and www.nmstatefarm.org/html/2012_02_03/465083_465255_2012_02_03_503262.html, website of Inner Mongolia agricultural and livestock Department Farm Bureau on 13 May 2012. “Zhang, chairman of his party at the north branch of the stored grain the Nenjiang base for visits to discuss the project, accessed at <http://61.136.252.199/html/tmkk/dsj.htm> and <http://heihe.mofcom.gov.cn/aarticle/gaikuang/200601010365516.html> on 13 May 2012.

²⁸⁰ Chinese People’s Liberation Army General Logistics Department Headquarters, *Science of Strategic Logistics*, p. 152.

Appendix 1: GLD Organization Charts

Figure 1: GLD Organization from October 1992 – October 1998

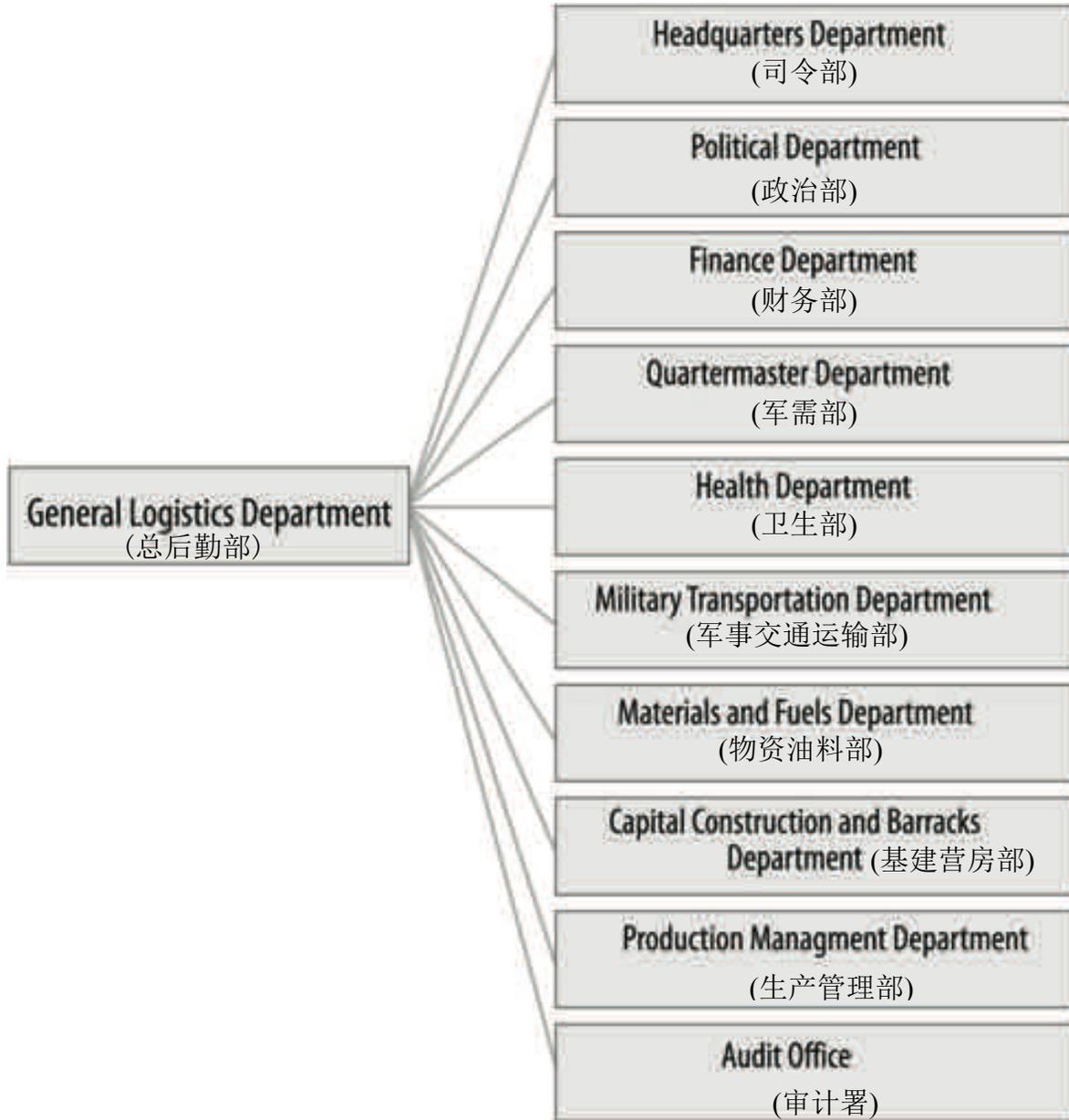


Figure 2: GLD Organization from October 1998 – October 2003

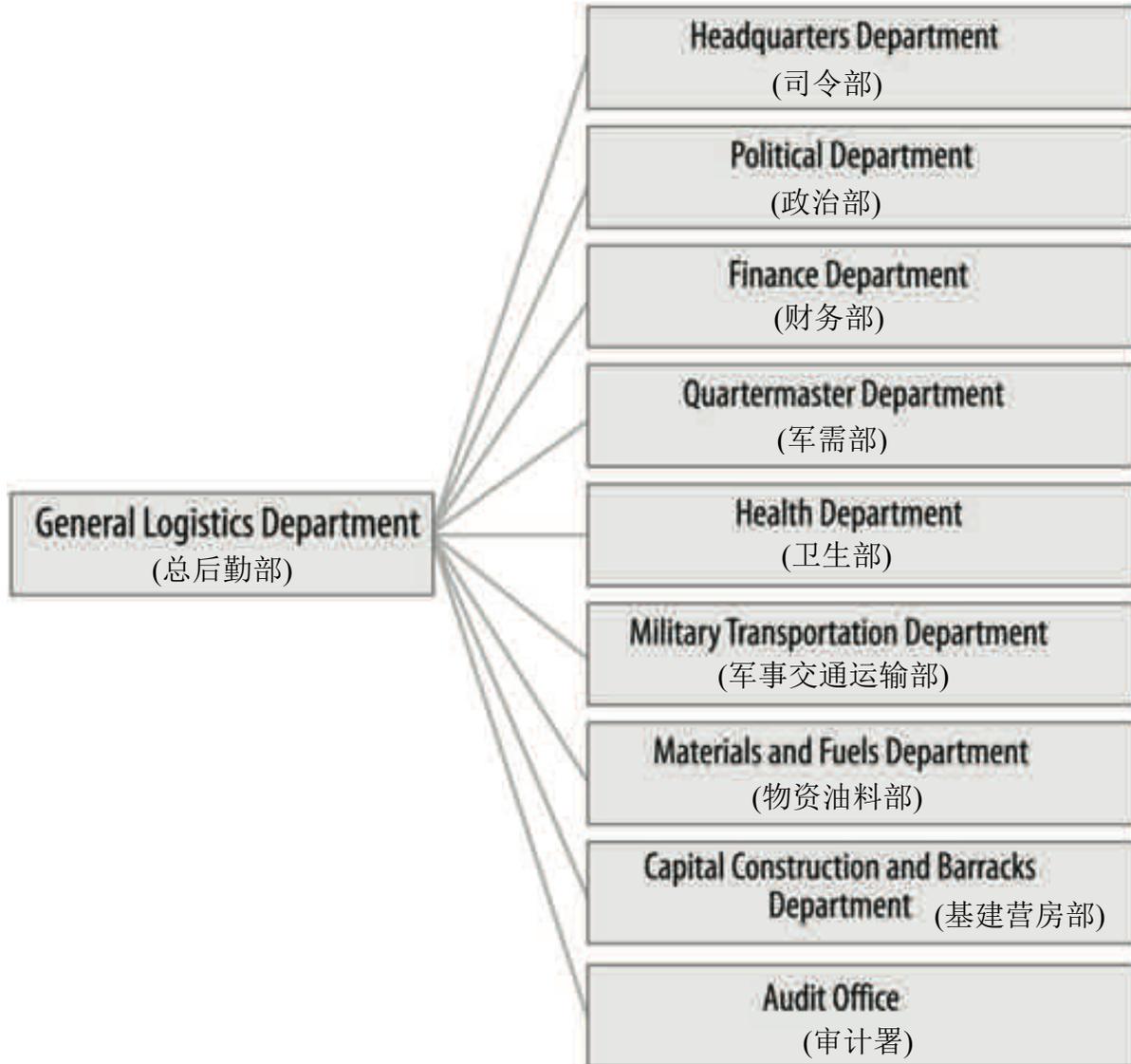
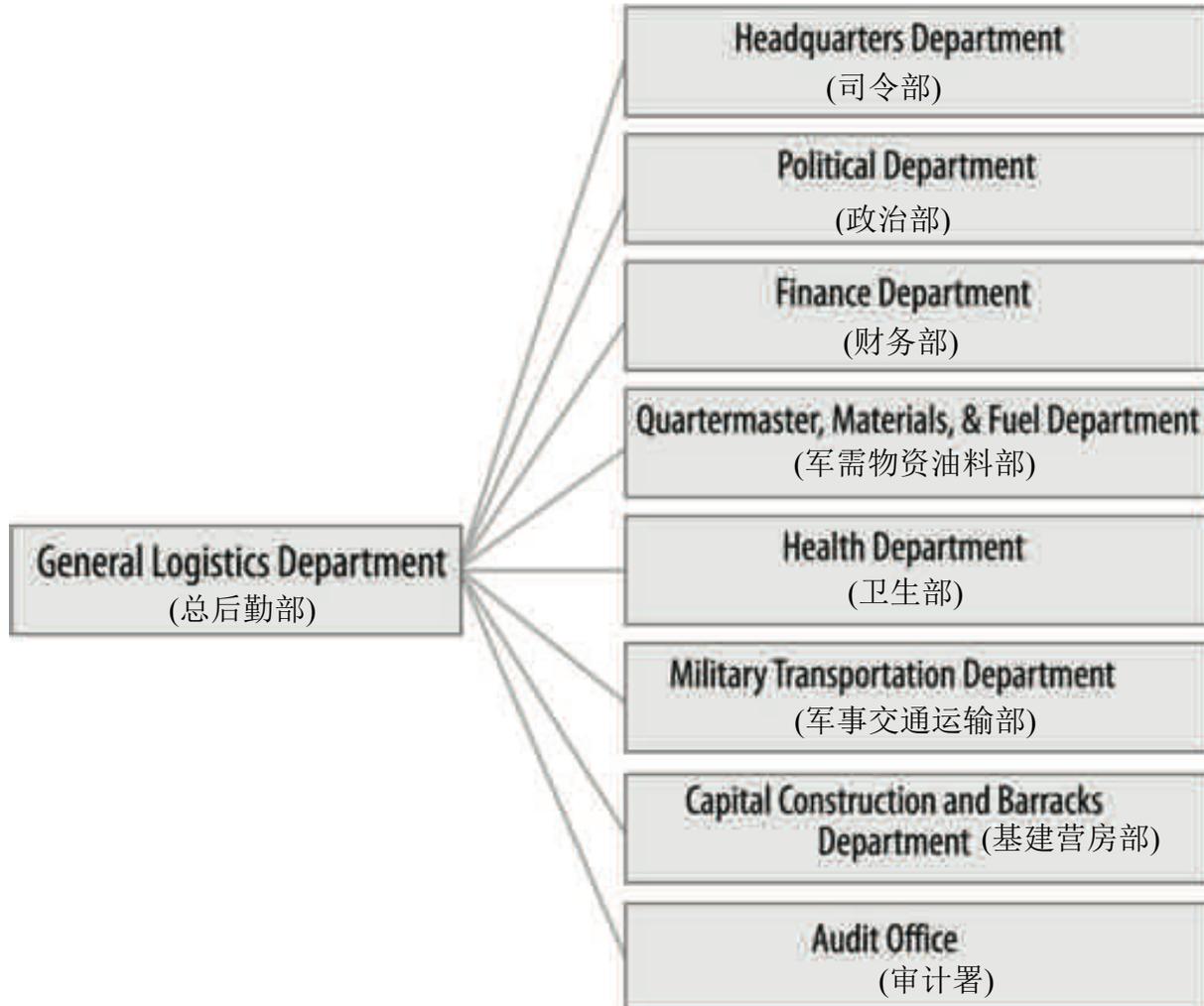


Figure 3: GLD Organization from October 2003 – Present



Chapter Seven: General Armament Department

Kevin Pollpeter and Amy Chang

The General Armament Department (GAD/总装备部), also referred to as the General Armaments Department and the General Equipment Department (GED), was created in 1998 and is the youngest of the four General Departments. The GAD is a Central Military Commission (CMC) member-grade organization (军委委员) and is led by a Director (主任) who holds the same grade and has the rank of general. The GAD also has a political commissar (政委), who serves as the secretary of the Party Committee and is a military region (MR) leader-grade (正大军区职) officer who holds the rank of lieutenant general or general. In addition, the GAD has averaged three to five deputy directors and one deputy political commissar, who, like the political commissar, have the grade of military region leader and the rank of lieutenant general or general. To date, no PLA Navy, Air Force, or Second Artillery officer has served as a deputy.

The GAD is responsible for the PLA's weapons and equipment research, development, acquisition, and maintenance. It determines, formulates, supervises, and implements the policies, laws and regulations regarding weapons and equipment for the entire military. The GAD is also responsible for weapons and equipment budgeting, including oversight and auditing. In conducting these tasks, the GAD operates China's test, evaluation, and training bases as well as a network of military representative bureaus and offices. Finally, the GAD guides the direction of PLA modernization through its Science and Technology Committee.¹

The GAD was formed in April 1998 from elements of the General Staff Department (GSD), the General Logistics Department (GLD), and the now defunct Commission for Science, Technology, and Industry for National Defense (COSTIND/国防科学技术工业委员/科工委) in an effort to establish more military control over weapons and equipment development and procurement. This reform resulted in a downgraded COSTIND and placed responsibility for procurement in the hands of the GAD. The previous procurement bureaucracy made up of COSTIND and the GLD had been characterized by competing interests. COSTIND, for example, was widely seen as representing the defense industry's interests over the military's interests. The new structure sought to correct this deficiency by centralizing control and decision-making in the hands of the newly formed GAD and relegated COSTIND to the diminished, but still important, role of managing the defense industry.

The GAD-COSTIND relationship was further reformed in 2008 at the expense of COSTIND. While it appears that GAD did not directly benefit from this latest reform, COSTIND was downgraded to the State Administration for Science, Technology, and Industry for National Defense (SASTIND/国家国防科技工业局), a *ju*-level organization. The new SASTIND reports to the Ministry of Industry and Information Technology (MIIT/工业和信息化部), which was also created in 2008, and is responsible for coordinating the activities of the defense industry, civil-military integration, and serving as the work office for the State Council/Central Military

¹ Fu Quanyou, ed., *The Chinese Military Encyclopedia: Supplemental* (《中国军事百科全书: 增补》), Beijing: Military Science Press, 2002, p. 658.

Commission Special Commission, an organization made up of top leaders from the military, government, and the defense industry.

This latest reform, while also aimed at consolidating military control over weapons and equipment development and procurement, appears to have had no effect on the organizational structure of the GAD. In fact, the only organizations identified as being established after 2000 are those associated with human spaceflight. Moreover, the GAD's increased authority does not appear to have translated into an increased role in weapons and equipment research, development, and acquisition (RDA) within the military itself. Indeed, the GAD still appears to be mainly involved in ground force, nuclear, and space technology development and informationization and is not the primary organization for Air Force, Navy, and Second Artillery Force RDA. Weapons and equipment RDA for these organizations is managed through their respective equipment departments, but appears to be overseen by the GAD.

The GAD's responsibility for ground force RDA is exercised through its Ground Force Armament Scientific Research and Procurement Department (陆军装备科研订购部). The GAD appears to exercise this responsibility through a system of military representative bureaus and offices. Military representative bureaus manage a network of military representative offices stationed in factories and research institutes that oversee research, development, and manufacturing of weapons and equipment, participate in the bidding selection process, sign contracts, ensure contractual compliance, facilitate payments, and conduct their own research on equipment and maintenance equipment. Military representatives also implement quality control measures during the entire RDA process, inspect and accept completed systems and platforms, and adjust prices for old equipment. In wartime, military representatives oversee the resumption or expansion of military production lines.² This system is quite extensive with over 100 different military representative bureaus and offices that are organized into the following seven categories:

- Large geographic areas
- Municipalities and districts
- Provinces and autonomous regions
- Cities and districts
- Research Institutes
- Factories
- Defense industry companies and corporations

It should be noted that the Air Force, Navy, and Second Artillery maintain their own military representative structure.

The GAD is also responsible for nearly all of China's space program. It is responsible for all satellite and launch vehicle RDA, with the exception of China's lunar exploration program, which is managed by the China National Space Administration. Even China's human spaceflight program is managed by the GAD under the auspices of the China Manned Space Engineering Office. In fact, China's commitment to human spaceflight is represented by its growing

² Zhang Fuxing, ed., *China Military Encyclopedia (Second Edition): Introduction to Military Equipment* (中国军事百科全书(第二版): 军事装备总论), Beijing: Encyclopedia Press, 2008, p. 402.

organizational support of the program. The GAD established the Basic Aerospace Medicine and Applications State Key Laboratory (航天医学基础与应用国家重点实验室) in 2009 and the Human Factors Key Laboratory (人因工程重点实验室) in 2011 to support the human spaceflight program. Moreover, with the downgrade of COSTIND to SASTIND, the China Manned Space Engineering Office has taken over some international cooperation activities for human spaceflight and regularly represents China at international human spaceflight events.

The GAD also runs China's three launch centers at Jiuquan, Xichang, and Taiyuan, its control centers at Xi'an and Beijing, and a network of tracking, telemetry, and control stations based in China and around the world as well as three operational tracking ships. The GAD is also building a new launch center in Wenchang, Hainan. This launch center will be used to launch human spaceflight missions and communication satellites. The Wenchang Launch Center has two advantages over the other launch centers. Its location on the coast means that China can launch rockets over the ocean, reducing the chance that debris from launches or errant rockets will not harm the population or property. The location of the launch center closer to the equator also means that rockets can use less fuel or launch heavier payloads into orbit than launches from the other launch sites.

Similarly, the GAD maintains China's nuclear weapons R&D infrastructure. This includes the China Nuclear Test Base at Lop Nor (aka 21st Experimental and Training Base, 63650 Unit/中国核试验基地, 第 21 试验训练基地, 63650 部队), the Northwest Institute of Nuclear Technology (西北核技术研究所), and the China Academy of Engineering Physics (CAEP/中国工程物理研究院).

The GAD also appears to take a lead in promoting “informatization” within the PLA. The Electronic and Information Infrastructure Department (电子信息基础部) manages all electronic and information technologies in the armed forces, including “electronic, counterelectronic, and information warfare for the Fourth Department of the GSD and other services of the PLA.”³

While responsibility for Air Force, Navy, and Second Artillery weapons and equipment development still mainly resides with the services, the GAD is not completely divorced from their RDA activities. The GAD maintains the Services and Branches Armament Department (军兵种装备部), a corps leader-grade organization responsible for coordinating weapons and equipment design, development, and procurement with Air Force, Navy, and Second Artillery Force equipment departments, which are also corps leader-grade organizations. Meanwhile, the GAD's second-level Ground Force Armament Scientific Research and Procurement Department, a corps leader-grade organization, is responsible for ground force equipment. The GAD also has a role in joint weapons and equipment RDA through the General-Use Equipment Support Department (通用装备保障部), which is also a corps leader-grade organization. This department oversees the development of non-weapon systems-type equipment used by all three services and the Second Artillery Force, including ammunition, vehicles, and radar.

³ David Shambaugh, *Modernizing China's Military: Progress, Problems, and Prospects*, Berkeley and Los Angeles: University of California Press, p.146.

The GAD also maintains three weapons tests centers that serve all services and the Second Artillery Force. These include the China Huayin Weapons Test Center (中国华阴兵器试验中心), the China Baicheng Weapons Test Center (中国白城兵器试验中心), and the China Luoyang Electronic Equipment Testing Center (中国洛阳电子装备试验中心) of which the first two are corps leader-grade and the last is a division leader-grade organization.

One of the most important GAD organizations is the Science and Technology (S&T) Committee (科学技术委员会). The S&T Commission is described as the “leading technical and intellectual brain trust” for defense S&T and serves as a nexus between military units, the CMC, and the defense industry.⁴ The S&T Committee determines strategies for developing defense-related science and technology and advises the PLA leadership on weapons and equipment selection, military modernization, arms control, and nonproliferation.⁵ In this capacity, the S&T Commission has direct access to the CMC.⁶

The Committee is a unique organization within the PLA’s grade structure. It is a military region leader-grade (正大军区职) organization whose director is a GAD deputy director. Normally, however, GAD deputy directors have the grade of MR deputy leader.⁷ As such, the committee is bureaucratically superior to other organizations within the GAD.

The S&T Committee is staffed by up to 1,000 personnel made up of nine senior advisors, non-permanent members, and numerous senior advisors and expert groups. The S&T Committee appears to mostly exercise influence over the RDA process through its system of expert committees. Research done for this report identified 51 expert committees covering a range of weapons and technology from internal medicine to satellites and from ships to tanks. These expert committees bring together personnel from industry, research organizations, and the military to identify technologies required by the military and appear to be an important conduit for industry to influence weapons and equipment procurement.⁸ Their role in determining the feasibility of weapons and equipment for all services and GAD’s direct channel to the CMC give them an essential role in deciding technology development for the entire PLA.

Leadership

GAD has had five directors since its inception in 1998. The majority (three of the five: Zhang Youxia, Chang Wanquan, and Chen Bingde) have been MR commanders. So far, the first four directors have moved on to other positions within the CMC after their tours as GAD director. For example, Cao Gangchuan and Chang Wanchuan, the first and fourth GAD directors, respectively,

⁴ Tai Ming Cheung, Eric Hagt, Susan Puska, Debra Geary, and Joe McReynolds, “Evolving Push-Pull Relationship Between the Research, Development, and Acquisition Communities,” paper presented at Second Annual Conference on China’s Defense and Dual-Use Science, Technology, and Industrial Base, June 30 – July 1, 2011, p. 16.

⁵ Zhang, *China Military Encyclopedia (Second Edition): Introduction to Military Equipment*, p. 398 and http://news.fznews.com.cn/jszx/2006-8-23/2006823ke8re+kyba103427_2.shtml on 16 October 2012.

⁶ Lu Xicheng, “GAD S&T Committee Director Lu Xicheng: National Defense S&T Battleline Brilliant Model (总装备部科技委副主任卢锡城: 国防科技战线的光辉典范),” *Xinhua*, 11 November 2011.

⁷ <http://iask.sina.com.cn/b/6440208.html>

⁸ Cheung, et al, “Evolving Push-Pull Relationship Between the Research, Development, and Acquisition Communities,” p. 17.

moved on to become the Minister of Defense; Li Jinai became the director of the General Political Department after just two years as the GAD director; and Cheng Bingde, the third GAD director, became Chief of General Staff after his GAD tour ended in 2007.

Short biographies are provided below for each of the GAD directors.

Zhang Youxia (张又侠)

October 2012 to Present

Zhang Youxia is the current Director of the General Armament Department. Zhang was born in July 1950 and joined the PLA in 1968. Zhang subsequently spent over 35 years in the Chengdu MR.⁹ He became one of the Deputy Commanders of the Beijing MR in December 2005. In 2007, he was promoted to Commander of the Shenyang MR. In September 2007, he became a member of the 17th CPC Central Committee. He was also promoted to the rank of General in July 2011.

Recently at the 18th Party Congress, Zhang set his priorities as GAD Director on accelerating indigenous research and development of high-tech weapons and equipment.¹⁰

Chang Wanquan (常万全)

September 2007 to October 2012

Chang Wanquan was born in 1949 and joined the PLA in March 1968 and the Chinese Communist Party (CCP) in November 1968. Between January 2002 and 2003, he was the Chief of Staff of the Lanzhou MR. Between 2003 and 2004, Chang was Chief of Staff of the Beijing MR. From December 2004 to September 2007, he was the commander of the Shenyang MR, where he was reportedly lauded in his efforts to secure the Chinese border with North Korea. In October 2012, Zhang Youxia replaced him as the director and Chang moved up to the number one position in protocol order as a CMC member, while he waits to replace General Liang Guanglie as the next Minister of Defense at the 12th National People's Congress in March 2013.¹¹

Chen Bingde (陈炳德)

September 2004 to September 2007

Born in July 1941, Chen Bingde joined the PLA in 1961 and the CCP in 1962, and reached the rank of General in 2002.¹² He was a CMC Member from 2004 until he retired in October 2012. He held leadership positions within the Nanjing MR from 1993 to 1999. He then became Commander of the Jinan MR from 1999 to 2004. Unlike his predecessors, Chen's background largely drew from operational experiences, which may have been the next consideration for the

⁹ Mandip Singh, "The Likely Composition of the Central Military Commission of the 18th Party Congress of China," *Institute for Defence Studies and Analyses*, October 31, 2012, accessed November 12, 2012, www.idsa.in/issuebrief/TheLikelyCompositionoftheCentralMilitaryCommissionofthe18thPartyCongressofChina_MandipSingh_301012.

¹⁰ "New Top Defense Officers Chorus Loyalty, Military Modernization," *Xinhua*, November 11, 2012, accessed November 12, 2012, http://news.xinhuanet.com/english/special/18cpenc/2012-11/11/c_131966432.htm.

¹¹ Chang Wanquan, "Chang Wanquan: Reviewing Three Years' Participation in China's Northeastern Frontier Defense (常万全: 回眸参与东北边防建设的三年)," *Liberation Army Daily* (解放军报), January 7, 2009, accessed November 12, 2012, www.chinamil.com.cn/site1/xwpdxw/2009-01/07/content_1610385.htm.

¹² Information accessed at www.chinavitae.com/biography/Chen_Bingde/career on 12 November 2012.

military leadership after technical and political consolidation of GAD from its previous two directors.

Li Jinai (李继耐)

November 2002 to September 2004

Li Jinai was born in July 1942, and he joined the PLA in December 1967. He was promoted to the rank of General in 2000. Li became involved in the GAD in 1998, when it was established, and served as political commissar until 2002, when he became its Director. After his tenure at GAD, he served as Director of the GPD until he retired in October 2012.¹³

Cao Gangchuan (曹刚川)

April 1998 to November 2002

Cao Gangchuan was born in December 1935 and joined the PLA and CCP in 1954 and 1956, respectively. Prior to his role as GAD Director, Cao was the minister of COSTIND. He spent an extensive part of his career in the GSD (from 1975 to 1996) and also worked in the GLD (from 1963 to 1975).¹⁴ Before becoming GAD Director, Cao spent all of his career as a weapons and equipment officer and not in combat units.¹⁵

Cao served as the first Director of GAD in April 1998. That year, he was also promoted to General. His priorities were primarily involved with bureaucratic restructuring after the dissolution of COSTIND and the reorganization of SASTIND under MIIT. He was also responsible for the acquisition of sub-organizations that were previously under the GLD and GSD.¹⁶ Among other priorities, Cao was also heavily focused on technical training.¹⁷ His posting as the Deputy Director of the GSD's Military Equipment Department from 1982-1989 and his appointment as the Director of the Office of Military Trade under the Central Military Commission required him to travel extensively to Europe and Russia to negotiate weapons purchases and it is this experience which may have made him ideally qualified as the first GAD Director.¹⁸ After his position as Director of GAD, Cao became Minister of Defense between 2003 and 2008, at which time he retired

GAD's Second-level Organizational Structure

GAD's second-level organizational structure is made up of ten departments, the S&T Committee, and a number of directly subordinate organizations, including organizations responsible for China's space program, nuclear weapons program, test bases, research organizations, and schools and academies. The ten departments cover all aspects of GAD's work, including political affairs, administration, and functional departments responsible for the R&D of general-use equipment as well as service specific technologies. All departments are corps deputy-leader grade organizations, except for the GAD S&T Committee, currently headed by Li Andong, who is an MR-leader grade officer.

¹³ Information accessed at www.chinavitae.com/biography/Li_Jinai/career on 12 November 2012.

¹⁴ Information accessed at www.chinavitae.com/biography/Cao_Gangchuan/career on 12 November 2012.

¹⁵ James Mulvenon, "Cao Gangchuan: A Political Biography," *China Leadership Monitor*, Fall 2002.

¹⁶ Jencks, "The General Armament Department," p. 305.

¹⁷ *Ibid*, p. 282-283.

¹⁸ Mulvenon, "Cao Gangchuan: A Political Biography."

Headquarters Department

The Headquarters Department (司令部) manages all administrative affairs within the GAD.¹ It is composed of 11 organizations, including the General Office (办公室), Secretariat (秘书局), Management Bureau (管理局), Aerospace Bureau (航天局), Combat Testing Bureau (作战实验局 alternatively 作试 or 作战试验局), Communications Bureau (通信局),² Telemetry and Control Bureau (测控局), Confidential Bureau (机要局), Military Training Bureau (军训局), Meteorological Division (气象处), and Engineering Bureau (工程局).³ Little information is available for most of these organizations.

The Aerospace Bureau is involved in Shenzhou spacecraft launches, Chang'e lunar probes, and manned spaceflight/space station missions.⁴ The bureau is also involved in international space cooperation efforts.⁵ The Telemetry and Control Bureau most likely is involved in managing China's telemetry, tracking and control (TT&C) network. The bureau is involved in China's aerospace activities, including spacecraft, satellites, lunar probes, manned spaceflight, and space station missions.⁶ It works with other GAD departments, SASTIND, and Beijing Aerospace Control Center, Chinese Academy of Sciences among other similar units.⁷

The Military Training Bureau, on the other hand, is involved in education initiatives that promote national policies and regulation.⁸ It is also involved in the establishment of schools and educational institutions, such as the Materials Electronic Theory Research Laboratory and Materials Interface Laboratory.⁹ Finally, the Meteorological Office provides weather forecasting for China's space launches.¹⁰

Science and Technology Committee

The Science and Technology Committee (科学技术委员会) is responsible for guiding weaponry and defense science and technology development and assisting in developing strategies for weapons and equipment development. The Committee is assigned the grade of MR leader.¹¹

The S&T Committee is led by nine senior advisors, non-permanent members, and numerous senior advisors. The Committee is made up of at least 51 expert groups which advise the CMC on a range of defense-related science and technology issues.¹² These expert groups include:

¹ www.sinodefence.com/overview/organisation/gad.asp

² www.cnki.com.cn/Article/CJFDTotat-WXDT200306005.htm

³ <http://wenku.baidu.com/view/60b7d702b52acfc789ebc976.html>

⁴ www.siat.ac.cn/xwzx/zkyxw/200809/t20080927_2094599.html

⁵ www.people.com.cn/h/2011/1118/c25408-1-4250625704.html and www.miit.gov.cn/n11293472/n11293832/n11293907/n11368223/13467364.html (cached copy) accessed 25 March 2012.

⁶ www.hebstd.gov.cn/content/2012-03/26/content_57726.htm

⁷ www.hebstd.gov.cn/content/2012-03/26/content_57726.htm; www.sti.gov.cn/qth/info.php?infos_id=280

⁸ <http://news.cufe.edu.cn/zckx/2748.htm>; www.qikancn.com/qikan/shehui/qitajiaoyu/685.html

⁹ <http://youth.hdpu.edu.cn/weekly/show.aspx?id=5560>

¹⁰ <http://mil.news.sina.com.cn/2003-11-22/165159.html>

¹¹ <http://iask.sina.com.cn/b/6440208.html>

¹² Cheung, et al, "Evolving Push-Pull Relationship Between the Research, Development, and Acquisition Communities," p. 17.

- Advanced Manufacturing Technology(先进制造技术专业组)¹³
- Advanced Materials (先进材料专业组)¹⁴
- Aircraft (飞机专业组)¹⁵
- Air Propulsion (空气动力学专业组)¹⁶
- Aircraft Systems (机载系统专业组)¹⁷
- Armored Vehicle Technology (装甲车辆技术专业组)¹⁸
- Chinese Medicine (中医专业组)¹⁹
- Comprehensive Electronic Circuit Lines (综合电子线路专业组)²⁰
- Comprehensive Electronic Warfare (综合电子战专业组)²¹
- Computer and Software Technology (计算机及软件技术专业组)²²
- Conventional Propulsion (常规动力技术专业)²³
- Detonator Technology (引信技术专业组)²⁴
- Detonator and Initiators (引信火工品专业组)²⁵
- Electro-optical Technology (光电子专业组)²⁶
- Electromagnetic Compatibility and Defense Technology (磁兼容及防护技术专业组)²⁷
- Electronic Information Systems (电子信息系统专业组)²⁸
- Electronic Warfare Technology (电子对抗技术专业组)²⁹
- Equipment Maintenance Engineering (装备维修工程技术专)³⁰
- Explosives (火炸药专业组)
- Firearms, Artillery, and Missiles (枪炮弹箭专业组)³¹
- Internal Medicine (内科专业组)³²
- Inertial Technology (惯性技术专业组)³³
- General-use Sensing Technology (通用测试技术专业)³⁴
- Ground Force Support Equipment (陆军保障装备技术专业组)³⁵

¹³ <http://today.hit.edu.cn/articles/2010/01-13/0115434950.htm>

¹⁴ <http://scbg.jourserv.com/NewsInfo.aspx?id=95>

¹⁵ www.fyjs.cn/bbs/read.php?tid=220846

¹⁶ <http://baike.baidu.com/view/5532456.htm>

¹⁷ www.ctxjsh.cn/hotnews/1115862.html

¹⁸ www.hudong.com/wiki/%E6%9F%B4%E7%8E%AE%E5%B2%A9

¹⁹ www.306.cn/zjjs/zjjs_show.asp?t_id=628&c_id=83

²⁰ www.xidian.edu.cn/jyjx/szdw/zhaoguoqing.htm

²¹ http://grd.bit.edu.cn/index.asp?modelname=dsqk_nr&recno=392

²² <http://zh.wikipedia.org/wiki/%E5%A8%84%E5%8B%A4%E4%BF%AD>

²³ www.fyjs.cn/bbs/read.php?tid=220846

²⁴ <http://job.sdu.edu.cn/specialR/50.html>

²⁵ <http://yz.chsi.com.cn/sch/schoolInfo--schId-368530,categoryId-487647,mindex-2.dhtml>

²⁶ www.cust.edu.cn/web/xxgk/szdw.html

²⁷ www.mwjjournal.org/ch/reader/view_news.aspx?id=2012041141647001

²⁸ www.syt.edu.cn/xinxi/introduce4.htm

²⁹ www.hlhl.org.cn/news/findnews/showsub.asp?id=1043

³⁰ www.weldr.com/article/2008/1021/article_11302.html

³¹ jxt.zlhc.org/Upload/20090701151423468.doc

³² www.jkb.com.cn/document.jsp?docid=137616

³³ www.csit.org.cn/Newsdetail.asp?id=329

³⁴ www.50.sh.cn/v.asp?id=1273

- Helicopter Technology (直升机技术专业组)³⁶
- Low Observable Technology (隐身技术专业组)³⁷
- Military Batteries (军用电池专业组)³⁸
- Military Computers (军用计算机专业组)³⁹
- Military Electronic Components and Electrical Power Sources (军用电子元器件及电源专业组)⁴⁰
- Military Microelectronics (军用微电子专业组)⁴¹
- Military Target Recognition (军用目标特性专业组)⁴²
- Missile Technology (导弹总体技术专业组)⁴³
- Navigation, Positioning, and Control Technologies (导航,定位与测控技术专业组)⁴⁴
- NBC Defense Technology (防化技术专业组)⁴⁵
- Nuclear Propulsion and Basic Nuclear Technology (核动力与核技术基础专业组)⁴⁶
- Precision Guidance Technology (精确制导专家组)⁴⁷
- Radar Sensing Technology (雷达探测技术专业)⁴⁸
- Radiation Hardening (抗辐射加固技术专业组)
- Reliability (可靠性专业组)⁴⁹
- Rocket Propulsion and Solid Propulsion (火箭发动机与固体推进剂专业组)⁵⁰
- Satellite Systems Technology (卫星系统技术专业组)⁵¹
- Satellite Technology (卫星技术专业组)⁵²
- Satellite Payload (卫星有效载荷专业组)⁵³
- Ship Technology (舰艇技术专业组)⁵⁴
- Simulation Technology (仿真技术专业组)⁵⁵
- Tank and Armored Vehicles (坦克装甲车辆专业组)⁵⁶

³⁵ www.biochip.org.cn/yjy/14409.shtml

³⁶ www.allzg.com/html/c644/2009-12/64084.html

³⁷ www.fyjs.cn/bbs/read.php?tid=220846

³⁸ www.qic.com.cn/news/exhibit-news-detail_21_0ac7f86b-e245-430f-86f7-37ab52d20125.html

³⁹ http://gtjuh.tongji.edu.cn/person/intro/new_page_120.htm

⁴⁰ www.gzbs.cn/news/guizhou/2012/0401/71170.html

⁴¹ <http://news.hfut.edu.cn/html/bgjz/2012/0504/2953.html>

⁴² www.chinadegrees.cn/xwyyjsjyxx/xw30/jzssn/yxxwhdz/273063.shtml

⁴³ <http://see.xidian.edu.cn/news/200912/20091203105517.htm>

⁴⁴ http://oc.xjtu.edu.cn/detail.do?method=msfc&article_id=1738

⁴⁵ www.cnedu.cn/new/201204/xu2012042609413324104569.shtml

⁴⁶ www.chinweb.com.cn/cgi-bin/chemport/getfiler.cgi?ID=IclXaBpVqeJiILKlcQqhn8renNq1OMrpkjSLRjfg4PLtWZxAm4J6zqwFirOFNS0J&VER=C

⁴⁷ www.casic.com.cn/n16/n1250/n10984/n17506/17672.html

⁴⁸ <http://book.douban.com/subject/4279099/>

⁴⁹ www.cannews.com.cn/2011/0324/108072.html

⁵⁰ http://xyh.nwpu.edu.cn/Q_pinglun.action?Q_info.id=576.0

⁵¹ www.360doc.com/content/12/0320/16/276037_196013057.shtml

⁵² <http://jwc.cicp.edu.cn/resource/data/071101/U/151/apply/teacher/index.html>

⁵³ <http://202.127.1.12/HYZJ/ghx.htm>

⁵⁴ www.cssrc.com.cn/person/xkdt.asp

⁵⁵ www.hudong.com/wiki/%E6%9F%B4%E7%8E%AE%E5%B2%A9

⁵⁶ www.edu.cn/tepin_4798/20080226/t20080226_281656.shtml

- Waterborne Weapons Technologies (水中兵器技术专业组)⁵⁷
- Weapon Fire Control and Electro-optical Technology (兵器火控与光电应用技术专业组)⁵⁸
- Weapons and Equipment Human Environment 武器装备人机环专业组⁵⁹
- Vehicles (车辆专业组专)⁶⁰
- Water Propulsion (水动力学专业组)⁶¹

Political Department

The GAD Political Department (政治部) manages all political affairs of the GAD, including cadre personnel, party affairs, security, discipline inspection, propaganda, and civilian-military relations.⁶² It focuses on leadership education and training, adherence to law, innovation cultivation, and cultivating accountability within the organization.⁶³ It is made up of a General Office, an Organization Department, a Cadre Department, a Propaganda Department, a Security Department, a Liaison Office, and a Party Committee.⁶⁴

Logistics Department

The Logistics Department (后勤部) supports GAD functions by providing supplies, financial, and health care services. It is made up of a Headquarters Department, a Political Department, a Capital Construction and Barracks Bureau, a Finance Bureau, a Quartermaster, Materials, and POL Bureau, a Health Bureau, a Testing Equipment and Materials Procurement Bureau, an Equipment Transportation Bureau, and a General Hospital.⁶⁵

Comprehensive Planning Department

The Comprehensive Planning Department (综合计划部) is responsible for the planning and policymaking for weapons development and procurement. In this regard, it appears to be involved in a variety of functions, including procurement, wartime support, and research. This department is made up of a General Office, Combat Service Support Bureau, Comprehensive Bureau, Equipment Finance Bureau, Foreign Affairs Bureau, Maintenance and Repair Bureau,⁶⁶ Management and Support Bureau, Project Preliminary Research Bureau, and a Scientific Research Bureau.

The Project Preliminary Research Bureau likely manages the earlier stages of the R&D process for military and national defense applications.⁶⁷ Such tasks can include dictating the focus, depth, and breadth of pre-research topics in core technologies during China's five-year plans.⁶⁸

⁵⁷ www.nwpu.edu.cn/info/1056/2325.htm

⁵⁸ www.cust.edu.cn/web/xxgk/szdw.html

⁵⁹ <http://yjszs.smmu.edu.cn/professor.aspx?pid=129>

⁶⁰ www.edu.cn/tepin_4798/20080226/t20080226_281656.shtml

⁶¹ www.cssrc.com.cn/person/xkdt.asp

⁶² www.sinodefence.com/overview/organisation/gad.asp

⁶³ www.chinamil.com.cn/site1/xwpdxw/2009-04/04/content_1714482_10.htm on 25 March 2012.

⁶⁴ www.pladaily.com.cn/gb/pladaily/2003/12/10/20031210001093_gdyl.html,

www.fjrelh.com/news/show.asp?articleid=5862,

<http://roll.sohu.com/20110518/n307909582.shtml>

⁶⁵ <http://wenku.baidu.com/view/60b7d702b52acfc789ebc976.html>

⁶⁶ <http://cp1980cp.blog.163.com/blog/static/55819825200823162134390/>

⁶⁷ <http://wqxtygc.njust.edu.cn/html/20111210165218.htm>

The Comprehensive Bureau is involved with strategic military planning. Its obligations range from Beidou satellite operations to weapons development and procurement to wartime mobilization.⁶⁹ It works in conjunction with superordinate departments and state owned enterprises to plan and secure military-related procurements⁷⁰ in order to “continue to serve China’s national development and security strategies.”⁷¹ Other objectives include accelerating the development of high-tech weaponry, developing third-generation weapons and equipment for national defense.⁷² The Bureau is also involved in non-war military operations, such as disaster relief and international peacekeeping.⁷³

Services and Branches Equipment Department

The Services and Branches Equipment Department (军兵种装备部) manages weapons and equipment design, development, and procurement for the Air Force, Navy, and Second Artillery Force.⁷⁴ This department is also said to be responsible for specialized equipment for the armored forces, field artillery, army aviation, military engineers, chemical defense troops, signal troops, and transportation troops.⁷⁵ It was formed from the former Special Arms Department and Equipment Departments of GSD and the Ordnance Department and Military Supplies Production Department of GLD—all of which were merged into the GAD in 1998.⁷⁶ Interestingly, the department does not have an Air Force Equipment Bureau and instead has an Aviation Equipment Bureau, suggesting that this bureau covers all of the PLA’s aviation, including naval and ground force aviation.

The Department is made up of a Comprehensive Bureau, Aviation Equipment Bureau,⁷⁷ Navy Equipment Bureau,⁷⁸ and a Second Artillery Equipment Bureau.⁷⁹

Ground Force Armament Scientific Research and Procurement Department

The Ground Force Equipment Scientific Research and Procurement Department (陆军装备科研订购部) manages the research, development, and procurement of conventional weapons for ground forces. No sources found for this chapter provided a comprehensive overview of this department. Besides the existence of a Comprehensive Bureau, its organizational structure indicates that the majority of the departments work is carried out through military the GAD’s military representative system as well as several procurement bureaus.

⁶⁸ <http://wqxtygc.njust.edu.cn/html/20111210165218.htm>; <http://nust.baike.com/article-99904.html>

⁶⁹ http://news.usqiaobao.com/2009-04/14/content_207256.htm

⁷⁰ www.chinatruck.org/2005/10/11008.htm; www.sfic.org.cn/focus/news1_main.jsp?messageID=2592

⁷¹ <http://bjyouth.yinet.com/article.jsp?oid=77615297>

⁷² <http://bjyouth.yinet.com/article.jsp?oid=77615297>

⁷³ http://news.timedg.com/2011-04/01/content_3309546.htm

⁷⁴ Shambaugh, *Modernizing China’s Military: Progress, Problems, and Prospects*, p.144.

⁷⁵ Jencks, “The General Armament Department,” p. 277.

⁷⁶ Shambaugh, *Modernizing China’s Military: Progress, Problems, and Prospects*, p.144.

⁷⁷ www.zhanhua.gov.cn/Item/881.aspx

⁷⁸ http://news.xinhuanet.com/mil/2008-05/30/content_8280575.htm

⁷⁹ www.casc42.com/tjaq/NewsView.asp?ID=79

Military Representative Bureau

The Military Representative Bureau (军代表局) manages a network of military representative offices stationed in factories and research institutes that oversee research, development, and production of weapons and equipment, participate in the bidding selection process, sign contracts, insure contractual compliance, facilitate payments, and conduct their own research on equipment and maintenance equipment. Military representatives also implement quality control measures during the entire R&D process, and inspect and accept completed systems and platforms.⁸⁰

Chemical Defense Military Representative Bureau

The Chemical Defense Military Representative Bureau (防化军事代表局) coordinates with military and government entities and companies to secure products and to promote nuclear, biological, and chemical defense equipment R&D.⁸¹ The bureau has been involved in national-level security issues, including the 2008 Beijing Olympics security,⁸² Wenchuan earthquake, and SARS outbreak. For example, the bureau was involved in the manufacture of nuclear radiation detection equipment in response to the Wenchuan earthquake.⁸³ The bureau also has patents for protective materials, such as positive pressure protective hoods and protective medical clothing.⁸⁴

Armored Forces Military Representative Bureau⁸⁵

The Armored Forces Military Representative Bureau (装甲兵军事代表局) works with local- and provincial-level government, state-owned enterprises, and civilian companies on the R&D and procurement weapons and equipment related to armored vehicles.⁸⁶

Corps of Engineers Military Representative Bureau

The Corps of Engineers Military Representative Bureau (工程兵军事代表局) appears to perform both military and civilian tasks. Some of the bureau's research and products include earthquake relief and rescue kits for emergency disaster relief put into use after the 2010 Yushu earthquake.⁸⁷ The 87 different kinds of equipment include detectors, search, rescue, lifting, resuscitation, warning, lighting, and power tools.⁸⁸ Other equipment developed and produced by the bureau include assault boats (冲锋舟艇).⁸⁹

The Engineering and Chemical Defense Bureau

The Engineering and Chemical Defense Bureau (工化局) appears to oversee engineering and nuclear, biological, and chemical defense equipment procurement.

⁸⁰ Encyclopedia, p. 403, www.docin.com/p-107854790.html, and www.chinabaike.com/article/baike/1000/2008/200805111456757.html.

⁸¹ www.china-htdl.com/_info/content_465.htm; www.gzrubber.com/cn/list.asp?id=174&temp=news

⁸² www.fsfyjs.com/viewnews.asp?id=43

⁸³ <http://wj.jq.gov.cn/qdgy/jqgy/zbgy/9220.htm>

⁸⁴ www.bwppe.com/product.php?id=26; www.chinamil.com.cn/item/sars/content/330.htm

⁸⁵ www.oestar.com.cn/CasenewsInfo.asp?id=125

⁸⁶ www.bj-hightech.com/bencandy.php?fid=2&id=1134

⁸⁷ http://chn.chinamil.com.cn/zz/2010-04/17/content_4509155.htm

⁸⁸ http://news.mod.gov.cn/action/2010-04/17/content_4146532.htm; a patent search has also revealed specific technologies the bureau has developed.

⁸⁹ http://news.xinhuanet.com/video/2008-07/11/content_8527331.htm

Military Procurement Bureau

The Military Procurement Bureau (军事采购局) is likely responsible for domestic and foreign military procurement.⁹⁰

Armor Scientific Research and Procurement Bureau

The Armor Scientific Research and Procurement Bureau (装甲科研订购局) is likely responsible for the RDA for armored vehicles.

Vehicle and Vessel Scientific Research and Procurement Bureau

The Vehicle and Vessel Scientific Research and Procurement Bureau (车船科研订购局) is likely responsible for the research and procurement of military vehicles and vessels, though the collaborating parties may also be private enterprises.⁹¹

General-Use Equipment Support Department

The General-Use Equipment Support Department (通用装备保障部) manages the life cycle of conventional equipment common to all services and branches. General-use equipment can include armored, chemical defense, and general purpose vehicles, boats, and C4ISR, electronic warfare, surveying and monitoring, and meteorological equipment.⁹² It is made up of the following organizations:

- Political Department (政治部)
- Ammunition and Missile Bureau (弹药导弹局)
- Armor Bureau (装甲局)
- Enterprise Labor and Personnel Bureau (企业劳动人事局)
- Factory Management Bureau (工厂管理局)
- Ordnance Bureau (军械局)
- Vehicle and Vessel Technical Support Bureau (车船技术保障局)
- Weapons and Radar Bureau (武器雷达局)

Electronic and Information Infrastructure Department

The Electronic and Information Infrastructure Department (电子信息基础部) manages RDA for electronic and information technologies in the armed forces, including electronic warfare and information warfare.⁹³ The Department has published and edited books on military electronic components, missile weapons and spacecraft equipment, and nuclear weapons.⁹⁴ The Department

⁹⁰ www.china.com.cn/chinese/junshi/217734.htm

⁹¹ www.zkppw.com/?thread-10089-1.html

⁹² “General Purpose Equipment (通用装备),” in *China Military Encyclopedia: A General Introduction to Military Equipment* (中国军事百科全书: 军事装备总论 p. 146.

⁹³ Shambaugh, *Modernizing China's Military: Progress, Problems, and Prospects*, p.146.

⁹⁴ <http://book.douban.com/search/%E6%80%BB%E8%A3%85%E5%A4%87%E9%83%A8%E7%94%B5%E5%AD%90%E4%BF%A1%E6%81%AF%E5%9F%BA%E7%A1%80%E9%83%A8%20%E7%BC%96>

is made up of a General Office, Comprehensive Bureau, and an Aviation Bureau⁹⁵ as well as the following organizations:

Aerospace S&T Equipment Bureau

The Aerospace S&T Equipment Bureau (航天科技装备局) is involved in aerospace science and technology equipment with other GAD entities and government ministries.⁹⁶

Electronic Equipment Bureau

The Electronic Equipment Bureau (电子装备局) is involved in the R&D and procurement process of electronic equipment for the military. It coordinates with military and civilian firms and research institutes.⁹⁷

Equipment Technology Cooperation Bureau

The Equipment Technology Cooperation Bureau (装备技术合作局) organizes and holds conferences such as the China International Defense Electronics Exhibition (CIDEX), which highlights and provides exchanges within the military electronics industry. No other information is known about the bureau.⁹⁸

New Technology Bureau

The New Technology Bureau (新技术局) is involved in the planning and implementation of research and development of new technology, which includes extensive involvement with the 863 Program.⁹⁹

Technology Infrastructure Bureau

The Technology Infrastructure Bureau (技术基础局) is involved in the review and quality control of the military's technical equipment.¹⁰⁰

Standards Research Center

The Electronic Information Basic Department Standardization Research Center (标准化研究中心) is located at the AVIC's 301 Research Institute along with the National Defense Science and Technology Standardization Research Center (国防科技工业标准化中心). The Center assists the GAD in determining guidelines, policies, development strategies, medium and long term development plans and regulations. It researches the system of military standards, and proposes improvements.¹⁰¹

⁹⁵ <http://nust.baike.com/article-99904.html>

⁹⁶ www.sbsm.gov.cn/article/chdsj/dsjs/200711/20071100012445.shtml?10

⁹⁷ www.gatechcorp.com/CompanyNewsDetails.aspx?ID=172;
www.cecxpo.com.cn/newshow.asp?id=11&newid=128; www.news.uestc.edu.cn/NewsRead.aspx?newsID=12791

⁹⁸ [www.haozhanhui.com/exhreport/exh_report_ehfnj.html;](http://www.haozhanhui.com/exhreport/exh_report_ehfnj.html)
<http://publish.it168.com/2002/0410/20020410000401.shtml>

⁹⁹ www.most.gov.cn/kjbgz/201110/t20111018_90339.htm

¹⁰⁰ www.capumit.org.cn/show.aspx?id=1247&classid=17; [www.avic.com.cn/xwzx/jtxw/364941.shtml;](http://www.avic.com.cn/xwzx/jtxw/364941.shtml)
www.gfjl.org/thread-139634-1-1.html

¹⁰¹ www.hudong.com/wiki/%E4%B8%AD%E5%9B%BD%E8%88%AA%E7%A9%BA%E7%BB%BC%E5%90%88%E6%8A%80%E6%9C%AF%E7%A0%94%E7%A9%B6%E6%89%80

Military Electronic Components Testing Center

The Military Electronic Components Testing Center (军用电子元器件检测中心) main responsibilities include new product identification and reliability testing of military electronic components, national military standard products, and other products; failure analysis of key defense project components; and conduct research on the reliability of and applications for military electronic components.¹⁰² There are five sub-centers: Beijing No. 1 Testing Center, Beijing No.2 Testing Center, Beijing No. 3 Testing Center, Guangzhou Testing Center, and Detection Technology Research Center.¹⁰³ The No. 1 Testing Center conducts electrical performance tests, aging tests, mechanical tests, environmental tests, DPA tests, and failure analysis and reliability tests. The center also conducts ultrasonic, micro-focus x-ray, scanning electron microscopy, and electrostatic sensitivity tests.¹⁰⁴

International Cooperation Department

The International Cooperation Department (国际合作部) works with other government entities (such as the Ministry of National Defense) and conducts international exchanges with other countries. It has a range of responsibilities, including establishing or strengthening bi- and multi-lateral military exchanges and overseeing national and international military exhibitions.¹⁰⁵

Science and Technology Department (科学技术部, or 科技部)

No information is available on the Science and Technology Department (科学技术部, or 科技部). Only one subordinate organization has been identified, the New Technology Bureau (新技术局).¹⁰⁶

¹⁰² http://news.xinhuanet.com/mil/2008-03/28/content_7874705.htm

¹⁰³ Ibid.

¹⁰⁴ Ibid.

¹⁰⁵ See: <http://news.sina.com.cn/c/2010-05-26/104620349566.shtml>;
<http://news.iqilu.com/guojj/20091204/134332.shtml>; <http://mil.eastday.com/m/20090527/u1a4398712.html>;
<http://military.people.com.cn/GB/1076/115150/11840137.html>;

¹⁰⁶ <http://wenku.baidu.com/view/60b7d702b52acfc789ebc976.html>

Directly Subordinate Organizations

Manned Spaceflight Organizations

China Manned Space Engineering Office

The China Manned Space Engineering Office (CMSEO/中国载人航天工程办公室) was approved on September 21, 1992 and is responsible for planning, overall technology development, engineering, facilities, outlays, international cooperation, and promotion of the human spaceflight program. CMSEO manages the human spaceflight program through the entire process of technology development, astronaut training, and operations. CMSEO has five divisions and eight subdivisions that encompass astronautics; spacecraft development and operation; launch vehicle development and operation; launch site operations; telemetry, tracking and communications; landing; life support systems and space applications. The divisions are:¹⁰⁷

Science & Technology Planning Bureau

The Science & Technology Planning Bureau (科技计划局) is responsible for programming, planning, outlays, development, quality, and flight mission management.

Infrastructure Construction Bureau

The Infrastructure Construction Bureau (工程建设局) is responsible for supporting construction of facilities related to the human spaceflight program

Overall System Design Bureau

Overall System Design Bureau (总体技术局) is responsible for overall blue print design and overall technology coordination.

International Cooperation Bureau

International Cooperation Bureau (国际合作局) is responsible for international cooperation and communication.

Information and Publicity Bureau

Information and Publicity Bureau (新闻宣传局) is responsible for media relations.

Other Units

CMSEO is also made up of a Communications Support Department (通信保障部),¹⁰⁸ a survey station (测量站) in Sichuan Province,¹⁰⁹ and an unidentified Base in Henan that has worked on large-scale radar simulation training systems.¹¹⁰

¹⁰⁷ www.cmse.gov.cn/AboutUs/list.php?catid=9

¹⁰⁸ Yang Fengbing, Zhao Peng, and Zhang Pengfei, "Build a New Armored Armament Management System Under Informatized Conditions (构建信息化条件下装甲装备管理新体系)," *War Friend News* (战友报), 4 November 2008.

¹⁰⁹ China Defense Industry News (中国军工报), 2 January 2011, p. 4.

¹¹⁰ Hu Baojie and Wang Peng, "Unidentified Station in Henan Explores Equipment Management Mode and Raises Support Capability (驻豫某站探索装备管理模式提升保障能力)," China Defense Industry News (中国军工报), 16 August 2011, p. 2.

China Astronaut Scientific Research and Training Center

The China Astronaut Scientific Research and Training Center (中国航天员科研训练中心 aka 中国航天员中心) is located at “Beijing Space City” in northwest Beijing. The Center is the former Astronautic Medicine and Program Research Institute (宇宙医学及工程研究所). It is responsible for the selection of astronauts, their training, the selection of astronauts for particular missions, and for ensuring the safety and health of China’s astronauts through research. The Center is the third astronaut training center to be established behind Russia’s Gagarin Cosmonaut Training Centre and the U.S. Johnson Space Center.

The Center is involved in a numerous studies to advance human spaceflight, including research on spacesuit technology, life support systems, space medicine, space nutrition, and the ergonomic design of China’s manned spacecraft. The Center also has Asia’s largest pool to simulate weightlessness and has a spacesuit test chamber to train astronauts in the depressurized environment of space.

The Center is also focusing on human habitation on the moon. This includes research on lunar space suit technology, controlled ecological life support technology, key technology research; radiation biology, the physical and psychological effects of lunar gravity, moon farm technology.¹¹¹

Aerospace Medical Engineering Research Institute¹¹²

The Aerospace Medical Engineering Research Institute (航天医学工程研究所) was established in April 1968 and combines research on humans, machines, and the environment to safeguard astronaut safety, health, and effectiveness. The research institute participates in astronaut selection and training, medical checkups and maintenance of health, and space capsule environmental control and life support systems, spacesuits, and space food. It has 15 laboratories and one test workshop.¹¹³

The Basic Space Medicine and Applications State Key Laboratory

The Basic Space Medicine and Applications State Key Laboratory (航天医学基础与应用国家重点实验室) was founded on December 1, 2009 to advance China’s human space flight program. The laboratory researches space medicine, the space environment, physiology, and space health. This includes the temperature environment, vibration environment, sonic environment, and radiation environment. The research is also done on microgravity, g forces, space sickness, and space psychology. The key laboratory has 10 chief scientists, a 5,000 square meter research facility, and 40 million yuan in facilities and equipment.¹¹⁴

¹¹¹ Pan Feng, Fan Qin, and Xiao Zhijun, “An Account of China’s “Astronaut Scientific Research and training Center” Innovation and Development (中国”航天员科研训练中心”创新发展纪实(组图)),” accessed at http://sci.ce.cn/yzdq/ht/htxw/201003/11/t20100311_21099765.shtml on 12 February 2012.

¹¹²

www.iweeeb.com/w/%E8%88%AA%E5%A4%A9%E5%8C%BB%E5%AD%A6%E5%B7%A5%E7%A8%8B%E7%A0%94%E7%A9%B6%E6%89%80

¹¹³ “PLA General Armament Department: China Defense Industry System Core (解放军总装备部:中国军工系统核心) accessed at www.360doc.com/content/11/12/14/11/5575132_172141966.shtml on 5 February 2012.

¹¹⁴ Information accessed at <http://baike.baidu.com/view/4796340.htm> and www.cmse.gov.cn/news/show.php?itemid=470 on 21 February 2012.

Human Factors Key Laboratory

The Human Factors Key Laboratory (人因工程重点实验室) laboratory was established in March 2011 and is dedicated to research on how the use of machines and the design of environmental systems affect a person's physiology and psychology in order to improve safety, health, and efficiency. This laboratory is aimed at improving human space flight.¹¹⁵

Launch Facilities

Figure 2: China's Launch Centers



Jiuquan Satellite Launch Center (20th Testing and Training Base, 63600 Unit)

The Jiuquan Satellite Launch Center (JSLC/中国酒泉卫星发射中心), also known as the 20th Training Base (第20试验训练基地/63600部队) is China's oldest and largest launch center and conducts launches of spacecraft into low, medium, and high inclination orbits. Although the launch center is named after the city of Jiuquan in Gansu Province, it is actually located 210 kilometers from Jiuquan in Inner Mongolia. It is the only launch center that conducts human space flight launches. Construction on the launch center was begun in 1958 and encompasses 2,800 square kilometers.¹¹⁶

¹¹⁵ Zhao Zhuqing, "Our Space Program Established Two Key Laboratories to Solve Difficult Problems of Flight (我航天两大重点实验室成立 破解飞行动力难题)", People's Daily, 30 March 2011.

¹¹⁶ "PLA General Armament Department: China Defense Industry System Core (解放军总装备部:中国军工系统核心)" accessed at www.360doc.com/content/11/12/14/11/5575132_172141966.shtml on 5 February 2012 and www.cgwic.com/LaunchServices/LaunchSite/JSLC.html.

The launch center is composed of a northern launch pad and a southern launch pad. The northern launch pad launches Long March 2C and 2D rockets while the southern launch pad launches Long March 2E and 2F rockets. In addition to the launch pads, the launch center has a command and control center, a rocket fuel storage area, and a tracking station. A technology monitoring station has a satellite and launch vehicle assembly station, a solid fuel rocket assembly station, a testing laboratory, a computer room, and other support facilities.¹¹⁷

Taiyuan Satellite Launch Center (25th Testing and Training Base/63710 Unit)

The Taiyuan Satellite Launch Center (中国太原卫星发射中心), also known as the 25th Experiment and Training Base (第 25 试验训练基地) is located in Taiyuan, Shanxi. Construction on the Taiyuan Satellite Launch Center began in 1967. The launch center conducts launches of satellites into sun synchronous and low earth orbits, including meteorological, remote sensing, and communications satellites. The Center consists of a launch site, a command and control center, and a technology testing area. The launch site consists of a single launch pad. The technology testing center consists of a satellite and solid and liquid fueled rocket assembly facility. The Center is also equipped with optical, radar, and telemetry equipment.¹¹⁸

Xichang Satellite Launch Center (63790 Unit)

The Xichang Satellite Launch Center (XSLC/中国西昌卫星发射中心), also known as the 27th Testing and Training Base (第 27 试验训练基地). It is also called “Xichang Satellite City” and is located 60 kilometers north of Xichang, Sichuan. Construction on the launch center began in 1970. This launch center launches of satellites into geosynchronous orbits, including communication, broadcast, and meteorological satellites. The launch center is composed of a headquarters department, a launch site, a communication station, a command and control center, a technology testing station, and three tracking stations. The technology testing station has a launch vehicle testing facility, a satellite assembly and testing facility, and a rocket engine assembly, testing, and flaw detection. The three tracking stations have optical, radar, and telemetry systems that supply TT&C data to the launch center and to Beijing Aerospace Control Center and to the Xi’an Satellite Control Center.¹¹⁹

Space Control Centers

China satellite TT&C network consists of the Xi’an Satellite Control Center, fixed land-based TT&C stations, mobile TT&C stations, and space tracking ocean ships. In different combination configurations according to the coverage requirements of the tracking telemetry mission, the network provides tracking telemetry support for different satellites.

¹¹⁷ Zhang, *China Military Encyclopedia (Second Edition): Introduction to Military Equipment*, p. 434-436.

¹¹⁸ *Ibid*, p. 438-439.

¹¹⁹ *Ibid*, p. 436-438.

Between XSCC and land-based TT&C stations, the main means of transmission is via satellites. Wired communication serves as a supplementary method. Communications between XSCC and surveillance ships and between XSCC and foreign satellite operation centers is accomplished via satellites.

The fixed TT&C stations are Kashi station, Weinan station, Nanning station, Xiamen station, Changchun station, Qingdao station, and Minxi station. In addition, TT&C stations at the launch sites can also be exploited when necessary.¹²²

Telemetry Tracking and Control Stations

The country's tracking and control-station network includes, but may not be limited to (in alphabetical order):

- Changchun Tracking & Control Station (Changchun, Jilin)
- Dongfeng Tracking & Control Station (Jiuquan, Gansu)
- Guiyang Tracking Station (Guiyang, Guizhou)
- Hetian Tracking & Control Station (Hetian, Xinjiang)
- Jiamusi Tracking & Control Station (Jiamusi, Heilongjiang)
- Kashi Tracking & Control Station (Kashi, Xinjiang)
- Lushan Tracking & Control Station (Jiujiang, Jiangxi)
- Lvliang Command Post (Lvliang, Shanxi)
- Minxi Tracking & Control Station (Shaxian, Fujian)
- Nanhai Tracking & Control Station (Foshan, Guangdong)
- Nanning Tracking & Control Station (Nanning, Guangxi)
- Qingdao Tracking & Control Station (Weihai, Shandong)
- Sanya Tracking Station (Sanya, Hainan)
- Taiyuan Tracking & Control Station (also known as Taiyuan Satellite Launch Center) (Kelan County, Shanxi)
- Tianshan Tracking & Control Station (Urumuqi, Xinjiang)
- Weinan Tracking & Control Station (Weinan, Shaanxi)
- Xiamen Tracking & Control Station (Xiamen, Fujian)
- Xi'an Satellite Control Center (Xi'an, Shaanxi)
- Zhanyi Tracking & Control Station (Qujing, Yunnan)

Sanya Station

The Sanya tracking station (三亚站) was put into use in April 2008.¹²³ Along with the monitoring stations in Kashi and Jiamusi, the three monitoring stations are an important fulcrum in China's land-based TT&C network. This "big triangle" provides a wide geographical advantage and vastly increases coverage of the TT&C network.

¹²² Tang Yixiang, Zhang Fengxiang, Wu Zhizhong, Li Jisheng, and Zhao Gang, *National Military Standards: China Satellite TT&C Network* (中华人民共和国军用标准: 中国卫星测控网用户指南), July 27, 1998.

¹²³ www.gov.cn/jrzg/2008-04/25/content_953727.htm

Kashi Station

Kashi station (喀什站) was built in 1968 and is located in the city of Kashi, Xinjiang Autonomous Region. It is equipped with S-band unified TT&C system (12m antenna), ultra-shortwave unified TT&C system, data processing system, time-frequency facility, VSAT satellite communication station and data, voice communication equipment. Kashi station is capable of TT&C missions for satellites in low earth orbit and sun-synchronous orbits.¹²⁴

Weinan Station

Weinan station (渭南站) is located in the city of Weinan in Shaanxi Province, it is equipped with C-band unified TT&C system, S-band unified TT&C system (10m antenna), limited motion antenna C-band unified TT&C system, C-band remote receiving station, single pulse precision radar (10m antenna), data processing system, time-frequency equipment, and data, voice communication equipment.

Weinan station can independently accomplish TT&C missions for the entry orbit segment, transfer orbit segment, drift orbit segment, fixed point capture, and long term management of the satellites in geosynchronous, low earth, and sun synchronous orbits.

Nanning Station

Nanning station (南宁站) is located in the city of Nanning, Guangxi Autonomous Region. Nanning station is capable of performing TT&C missions for satellites in low earth and sun-synchronous orbit. It is equipped with S-band unified TT&C system (12m antenna), single pulse precision radar (4.2m antenna), ultra-shortwave unified TT&C system, data processing system, time-frequency equipment, VSAT satellite communication station, and data, voice communication equipment.

Xiamen Station

Xiamen station (厦门站) is located in the city of Xiamen, Fujian Province and is capable of TT&C missions for satellites in low earth orbit and sun-synchronous orbits. It is equipped with C-band unified TT&C system, S-band unified TT&C system (10m antenna), single-pulse precision radar (3.6m antenna), data processing system, time-frequency equipment, VSAT satellite communication station, and data, voice communication equipment.

Xiamen station is mainly charged with carrying out TT&C missions for the entry orbit segment, transfer orbit segment, drift orbit segment, fixed point capture, and long term management of geosynchronous orbit satellites.

Changchun Station

Changchun station (长春站) is located in the city of Changchun, Jilin Province and performs TT&C missions for satellites in low earth orbit and sun-synchronous orbit satellites. It is equipped with ultra-shortwave unified TT&C system, data processing system, time-frequency equipment, VSAT satellite communication station, and data, voice communication equipment.

¹²⁴ <http://mil.news.sina.com.cn/2002-06-16/70882.html>

Qingdao Station

Qingdao station (青岛站) is located in the city of Qingdao, Shandong Province and performs TT&C missions for satellites in low earth orbit and sun-synchronous orbit satellites. It is equipped with S-band unified TT&C system (10m antenna), single-pulse precision radar (10m antenna), data processing system, time-frequency equipment, VSAT satellite communication station, and data, voice communication equipment.

Minxi Station

Minxi station(闽西站) is located in Shaxian, Fujian Province and performs TT&C missions for satellites in low earth and sun-synchronous orbits. It is equipped with ultra-shortwave unified TT&C system, data processing system, time-frequency equipment, VSAT satellite communication system, and data, and voice communication equipment.

Dongfeng Station

Dongfeng station (东风站) is located at the Jiuquan Satellite Launch Center in Gansu Province. It is equipped with single-pulse precision radar, S-band unified TT&C system, data processing system, time-frequency equipment, and data, voice communication equipment. Dongfeng station performs TT&C missions for the motion segment and the return segment of low earth orbit satellites.

Xingxian Station

Xingxian station (兴县站) is located in Xingxian, Shanxi Province and performs TT&C missions for satellites in low earth and sun-synchronous orbits. It is equipped with single-pulse precision radar, data processing system, time-frequency equipment, and data, voice communication equipment.

Yibin Station

Yibin station (宜宾站) is located in the city of Yibin, Sichuan Province and performs TT&C missions for satellites in low earth orbit. It is equipped with single-pulse precision radar, data processing system, time-frequency equipment, and data, voice communication equipment.

Korla Station

Korla station (库尔勒站) is located in the city of Korla, Xinjiang Autonomous Region and performs TT&C missions for satellites in low earth orbit. It is equipped with single-pulse precision radar, data processing system, time-frequency equipment, and data, voice communication equipment.

Mobile TT&C Stations

Mobile TT&C stations are mounted on vehicles and include the first mobile station, the second mobile station, and the landing field station.

First Mobile Station

The first mobile station (第一活动站) performs TT&C missions for near-earth orbit satellites and sun-synchronous orbit satellites. It is equipped with single-pulse precision radar (2.5m antenna), ultra-shortwave unified TT&C system, data processing system, time-frequency equipment, VSAT satellite communication station, and data and voice communication equipment.

Second Mobile Station

The second mobile station (第二活动站) performs TT&C missions for near-earth orbit satellites and sun-synchronous orbit satellites. It is equipped with S-band general system (5.5m antenna), ultra-shortwave unified TT&C system, data processing system, time-frequency equipment, VSAT satellite communication station, and data and voice communication equipment.

Landing Field Stations

Landing field stations (这陆站) are responsible for tracking, positioning, searching, hoisting, and transporting re-entry capsules. They can also perform other TT&C missions for near-earth orbit satellites and sun-synchronous orbit satellites. The landing field station is equipped with S-band unified TT&C system (5.5m antenna), meteorological measurement radar, directional searching equipment, recovery helicopter, data processing system, time-frequency equipment, VSAT satellite communication station, and data, voice communication equipment.

China Maritime Tracking, Telemetry, and Control Department (23rd Experiment and Training Base)

The Maritime Tracking, Telemetry, and Control Department(中国卫星海上测控部), also known as the 23rd Experiment and Training Base (第 23 试验训练基地) was established in 1978 to provide sea-based TT&C services for China's launches. It is located in Jiangyin, Jiangsu Province. Currently there are six ships under this department, three of them operational, named Yuanwang (远望, which are deployed to the Pacific, Atlantic, and Indian Oceans.¹²⁵

Tracking Ships

China has had a total of six tracking ships (测量船) : Yuanwang-1, Yuanwang-2, Yuanwang-3, Yuanwang-4, Yuanwang-5, and Yuanwang-6. Only three of the six ships are operational today: the Yuanwang 3, 5, and 6. Based on mission requirements, these tracking ships may be deployed to operate in any waters except for those in the polar zones.¹²⁶

The Yuanwang program was conceived to support China's intercontinental ballistic missile (ICBM) sea tests. The Yuanwang ships also serve as geostationary communications satellite tracking, comprehensive tracking capability for space assets, and manned space flights. These ships have a tracking range of 400,000km (248,550 miles).

Between 2011 and 2012, *Yuanwang* 3, 5, and 6 traveled a total of 120,000 nautical miles and 539-days at sea to provide space tracking and control support for the docking of the *Tiangong-1* space lab module and *Shenzhou-8* spacecraft.¹²⁷

The Yuanwang 1, 2, 3, 5, and 6 has a "C- and S-band monopulse tracking radar, a Cinetheodolite laser ranging and tracking system, a velocimetry system, and onboard computers to track and

¹²⁵ "PLA General Armament Department: China Defense Industry System Core (解放军总装备部:中国军工系统核心) accessed at www.360doc.com/content/11/12/14/11/5575132_172141966.shtml on 5 February 2012.

¹²⁶ "A 'Maritime Science City' that Can Resist Winds Stronger than Force Twelve --- Secrets of the Yuanwang 5 Revealed," *Guangzhou Nanfang Dushi Bao*, 25 September 2008, OSC ID: CPP20080925705007.

¹²⁷ http://news.xinhuanet.com/politics/2012-02/02/c_111482472.htm

control the spacecraft. They use a combination of inertial, satellite, and stellar for navigation and positioning”¹²⁸ to ensure missiles, satellites, and spacecraft measurements are correct. Communications technologies include “HF, ULF, UHF, and SATCOM, in the form of secured telephone, radio, fax and data link.”¹²⁹ The ships’ weather forecasting equipment includes a “weather radar, weather balloon, and meteorological satellite image receiving terminal.”¹³⁰

Yuanwang-1 Tracking Ship

Yuanwang 1 (远望一号测量船) completed construction in August 1977, was commissioned in 1978, and was decommissioned in October 2010. The Yuanwang-1 tracking ship is equipped with S-band unified TT&C system (9m antenna), single-pulse precision radar (9m antenna), C-band satellite telemetry reception and demodulation equipment, data processing system, time-frequency equipment, satellite communication station, data, voice communication equipment, and ship attitude, ship location tracking equipment. It carried out TT&C missions for geosynchronous satellites and other space vehicles.

Yuanwang-2 Tracking Ship

Yuanwang-2 (远望二号测量船) was launched in September 1978 and was decommissioned at an unknown time. This tracking ship was equipped with S-band unified TT&C system (9m antenna), C-band unified TT&C system (9m antenna), data processing system, time-frequency equipment, satellite communication station, data and voice communication equipment, and ship attitude, ship location tracking equipment. It carried out TT&C missions for geosynchronous satellites and other space vehicles.

Yuanwang-3 Tracking Ship

Yuanwang 3 (远望三号测量船) was launched on 26 April 1994 and commissioned on 28 May 1995. It is equipped with S-band unified TT&C system (12m antenna), single-pulse precision radar (9m antenna), data processing system, time-frequency equipment, satellite communication station, data and voice communication equipment, and ship attitude, ship location tracking equipment. It can carry out TT&C missions for geosynchronous satellites and other space vehicles.¹³¹

Yuanwang-4 Tracking Ship

In 1998, an oceanographic survey ship constructed in the 1970s to support China’s ICBM test program, Xiangyanghong 10, was converted into a space tracking ship and renamed Yuanwang-4 (远望四号测量船). Technological modifications included the addition of a “large-scale remote monitoring equipment with new frequency bands on the vessel, upgrad[ing] the vessel’s communications and computer facilities, and adjust[ing] antennas and equipment on the deck

¹²⁸ Sinodefence, www.sinodefence.com/navy/research_survey/yuanwang-1_2.asp; Sinodefence, www.sinodefence.com/navy/research_survey/yuanwang-3.asp; Sinodefence, www.sinodefence.com/navy/research_survey/yuanwang-5_6.asp

¹²⁹ Sinodefence, www.sinodefence.com/navy/research_survey/yuanwang-1_2.asp; Sinodefence, www.sinodefence.com/navy/research_survey/yuanwang-3.asp; Sinodefence, www.sinodefence.com/navy/research_survey/yuanwang-5_6.asp

¹³⁰ Sinodefence, www.sinodefence.com/navy/research_survey/yuanwang-1_2.asp; Sinodefence, www.sinodefence.com/navy/research_survey/yuanwang-3.asp; Sinodefence, www.sinodefence.com/navy/research_survey/yuanwang-5_6.asp

¹³¹ Tang, Zhang, Wu, Li, and Zhao, *National Military Standards: China Satellite TT&C Network*.

through a combination of technical upgrade and replacement to create a more rational layout and further improve the vessel's stability.”¹³² On 5 August 2007, Yuanwang-4 was damaged in a collision with a coal tanker and suffered extensive fire damage. It was decommissioned on 14 December 2011 after 36 years of service. Yuanwang 4 lacked the ability to control spacecraft and only monitors and tracks spacecraft.

Yuanwang-5

Yuanwang-5 (远望五号测量船) was commissioned in September 2007.

Yuanwang-6

Yuanwang-6 (远望六号测量船) was commissioned in April 2008. Its maiden voyage occurred in September 2008, when it provided tracking for the *Shenzhou-7* mission.

Test Organizations

Figure 4: Testing and Training Bases



China Nuclear Test Base (21st Experimental and Training Base/63650 Unit)

The China Nuclear Test Base (中国核试验基地), also known as the 21st Experiment and Training Base (第 21 试验训练基地), is located in Lop Nur, Xinjiang Autonomous Region and is China's only nuclear weapons test base. It is also reported that the base could be a major site for China's nuclear weapons stockpile.¹³³ According to a 1999 State Department "Fact Sheet," China initiated a program "to evaluate the safety and reliability of its nuclear weapons" at Lop Nur,¹³⁴ implying that China could be conducting sub-critical nuclear tests at the base.¹³⁵

¹³² Su Kuoshan and Xu Dianlong, "Fourth Space Survey Vessel Enters Service," *Xinhua*, 18 July 1999.

¹³³ Information accessed at www.nti.org/facilities/710/?s=Lop%20Nur%20Nuclear%20Weapons%20Test%20Base on 19 September 2012.

¹³⁴ U.S. State Department, "CTBT: Regional Issues and U.S. Interests," 8 October 1999.

Different sources provide different estimates of the base's size. According to one Chinese source, the base encompasses 470,000 square kilometers.¹³⁶ One Western report, however, give its size as 100,000 square kilometers.¹³⁷ In addition to nuclear weapons related work, the base is also used to conduct directed energy weapons testing.¹³⁸

China Aerodynamics Research and Development Center (29th Testing and Training Base/ 63820 Unit)

China Aerodynamics Research and Development Center (中国空气动力研究与发展中心), also known as the 29th Testing and Training Base (第 29 试验训练基地), is the country's largest and most comprehensive aerodynamic flight experimentation, research, and development organization and is the only organization which can conduct large, medium, and small experiments on low speed, high speed, and supersonic flight dynamics and aerodynamic heating, aerodynamic physics, and aerodynamic optics. It is located in Mianyang City, Sichuan Province. It conducts research using wind tunnels, numerical computation, and the modeling of aircraft, dirigibles, missiles, and spacecraft. The center is home to Asia's largest transonic wind tunnel at 2.4 meters. The center has participated in research and development of the Shenzhou space capsule and its escape system.

The Center was first proposed by prominent researchers Qian Xuesen and Guo Yonghuai in the 1960s and was established in 1968. The Center has a number of wind tunnels, including 8 X 6, 16 X 12, and 4 X 3-meter low speed wind tunnels; 3.2-meter subsonic wind tunnel, a 5-meter vertical wind tunnel, and 2.4 X 2.4-meter transonic wind tunnel, a 1.2 X 1.2-meter transonic and supersonic wind tunnel; a 0.5-meter supersonic wind tunnel, a 2-meter shock wave tunnel, a 1 meter hypersonic wind tunnel, a 0.3-meter hypersonic low density wind tunnel, and a 200 meter free flight ballistic test.¹³⁹

The Center has one Chinese Academy of Sciences academician, 300 senior technicians, 10 post-doctoral students, 50 Ph.D.s, and 200 master's degree holders.¹⁴⁰

China Baicheng Conventional Weapons Test Center (31st Testing and Training Base/63850 Unit)

The Baicheng Weapons Test Center (中国白城常规兵器试验中心), also known as the 31st Testing and Training Base (第 31 试验训练基地 /63850 部队) is located in Baicheng City, Jilin Province. It is the oldest and most authoritative national-level conventional weapons test center. It encompasses 2,000 square kilometers and was established in 1954 and conducts weapons test

¹³⁵ Jeffrey Lewis, "Subcritical Testing at Lop Nor," *Arms Control Wonk*, 3 April 2009, <http://lewis.armscontrolwonk.com>.

¹³⁶ "PLA General Armament Department: China Defense Industry System Core (解放军总装备部:中国军工系统核心) accessed at www.360doc.com/content/11/12/14/11/5575132_172141966.shtml on 5 February 2012.

¹³⁷ Information accessed at www.nti.org/facilities/710/?s=Lop%20Nor%20Nuclear%20Weapons%20Test%20Base on 19 September 2012.

¹³⁸ www.hudong.com/wiki/%E6%80%BB%E8%A3%85%E5%A4%87%E9%83%A8

¹³⁹ Information accessed at <http://baike.baidu.com/view/656100.htm> 17 May 2012.

¹⁴⁰ "PLA General Armament Department: China Defense Industry System Core (解放军总装备部:中国军工系统核心) accessed at www.360doc.com/content/11/12/14/11/5575132_172141966.shtml on 5 February 2012.

on ground force, naval, and air force conventional weapons from small arms to large missiles. Testing includes reliability testing, environmental suitability, electromagnetic compatibility, service life, and maintainability. More than 95 percent of conventional weapons have been tested at this center.¹⁴¹

China Huayin Weapons Test Center (32nd Testing and Training Base/63870 Unit)

The China Huayin Weapons Test Center (中国华阴兵器试验中心), also known as the 32nd Testing and Training Base (第 32 试验训练基地), was established in 1969 and is one of China's most authoritative conventional weapons test site for all three services, including conventional precision weapons, detonators, guided weapons, optical equipment, radar, and UAVs. The center is also said to fire thousands of artillery rounds every year.¹⁴² The base has Asia's largest comprehensive environmental modeling laboratory that can be used to test the performance of weapons and equipment in different types of simulated weather conditions.¹⁴³

China Luoyang Electronic Equipment Testing Center (33rd Test and Training Base/63880 Unit)

The China Luoyang Electronic Equipment Testing Center (中国洛阳电子装备试验中心), also known as the 33rd Test and Training Base (第 33 试验训练基地) is China's joint electronic warfare weapons testing base. It has 100 senior researchers and 150 personnel with graduate or Ph.D.s.¹⁴⁴

Ammunition Testing Center

The Ammunition Testing Center (弹药试验中心) is located in Wuhan, Hebei Province. No other information is available.

Project Design Research Academy

The Project Design Academy (总装备部工程设计研究总院) was established in 1958 in Beijing. It has a staff of 600 and is the PLA's largest comprehensive investigative design research organization. It conducts feasibility analysis for all missile, satellite, and human spaceflight launch sites. It has played a role in designing satellite launch centers, the human spaceflight launch center, a climate and environment modeling laboratory, Beijing's Olympic Park, and hundreds of national defense and civilian projects. It has won close to 200 national and military awards. The Academy has a number of departments, including architecture, planning, structure, sewage, heating and ventilation, environmental engineering, electrical distribution, interior design, engineering costs, mechanical engineering, oil and gas supply, automatic controls,

¹⁴¹ Zhang Fuxing, ed., *China Military Encyclopedia (Second Edition): Introduction to Military Equipment* (中国军事百科全书 (第二版): 军事装备总论), Beijing: Encyclopedia Press, 2008, p. 441-442 and "PLA General Armament Department: China Defense Industry System Core (解放军总装备部:中国军工系统核心) accessed at www.360doc.com/content/11/12/14/11/5575132_172141966.shtml on 5 February 2012.

¹⁴² 中国华阴兵器试验中心揭密

¹⁴³ "PLA General Armament Department: China Defense Industry System Core (解放军总装备部:中国军工系统核心) accessed at www.360doc.com/content/11/12/14/11/5575132_172141966.shtml on 5 February 2012.

¹⁴⁴ Ibid.

communications engineering, surveying, geology, bridging, computers, and engineering management.¹⁴⁵

Academic Institutions

Academy of Equipment Command and Technology

The Academy of Equipment Command Technology (装备指挥技术学院) is a corps leader grade institution aimed at the development of weaponry and equipment, training command and management personnel, training senior engineering and technical personnel for national defense scientific research and applications.¹⁴⁶ It was founded in 1978 and changed to its present name in 1999 (formerly known as COSTIND Command Institute of Technology). The academy is located in Huairou, Beijing. The academy has a testing and launch site, TT&C facility, electro-optical tracking measurement facility, command and control facility, and a communications facility.¹⁴⁷ Some of the major fields of study include: aircraft testing and launching, computer and applications, TT&C engineering, communication engineering, optoelectronic measuring equipment, radio telemetry remote control, conventional weapons testing equipment, and aerospace communications.¹⁴⁸

Armored Corps Engineering Academy

Armored Corps Engineering Academy (装甲兵工程学院) is a deputy corps leader organization and is a professional and technical institution to train armored equipment and technical support personnel for the military's armored mechanized units.¹⁴⁹ It was founded in 1953 and is formerly known as the Harbin Military Engineering College Armored Forces Department. In 1961 it was expanded to Xi'an and was called the Armored Forces Engineering College and in 1969 it was moved to Beijing.¹⁵⁰

The academy has 30 fields of study and has specialized laboratories, field training ground and other training simulation centers, a computer center, and language laboratory.¹⁵¹

It has close to 200 laboratories (including one National Key Laboratory), a computer center, an electro-optical measurement center, a combat simulation center, and a teaching command center.¹⁵² It has one Ph.D. science and research post-doctoral flow station, and 31 research areas.¹⁵³ Fields of study include: applied engineering, military opto-electric engineering, computer science and technology, engineering simulation, weapons and missile engineering, mechanical

¹⁴⁵ www.ccnf.com/exhibitor/20060113/trandterminal_200601130386_0.shtml and <http://search.chenhr.com/company/5369423.html>

¹⁴⁶ www.mod.gov.cn/service/2007-07/09/content_4085968.htm; <http://baike.baidu.com/view/663806.htm>

¹⁴⁷ www.mod.gov.cn/service/2007-07/09/content_4085968.htm

¹⁴⁸ www.mod.gov.cn/service/2007-07/09/content_4085968.htm

¹⁴⁹ <http://baike.baidu.com/view/104761.htm>

¹⁵⁰ www.cnedu.cn/school/school/jj/661120314852350021224736200.html

¹⁵¹ www.chinamil.com.cn/site1/milschools/2007-07/09/content_871312.htm

¹⁵² www.cnedu.cn/school/school/jj/661120314852350021224736200.html; <http://baike.baidu.com/view/104760.htm>

¹⁵³ "PLA General Armament Department: China Defense Industry System Core (解放军总装备部:中国军工系统核心) accessed at www.360doc.com/content/11/12/14/11/5575132_172141966.shtml on 5 February 2012.

engineering and automation, electrical engineering and automation, and military materials engineering.¹⁵⁴

Armored Corps Technology Academy

The Armored Corps Technology Academy (装甲兵技术学院) is a division leader grade organization¹⁵⁵ formed in 1951 to train technology personnel on the maintenance of armored equipment. The Academy has 2,000 students taught by 400 instructors in three academic departments: vehicle, mechanizes, and electronics.¹⁵⁶

Beijing PLA Chemical Defense Academy

The Beijing PLA Chemical Defense Academy (北京解放军防化研究院) is a comprehensive research organization conducting research on NBC defense. It has 24 research areas and two post-doctoral flow stations and an international key laboratory sponsored by the International Chemical Weapons Convention Organization. It was deployed during the Korean War to research defensive equipment and during China's nuclear weapons test to provide scientific data.¹⁵⁷ The Academy has an All Army Environmental Research Center, a Chemical Defense Equipment Evaluation Center, an organization associated with the Organization for the Prohibition of Chemical Weapons Laboratory, a National Civil Defense Project NBC Defense Research Experiment Center. It also conducts assessments of NBC defense equipment, applied research, and assessments of experiments.¹⁵⁸

Ordnance Engineering College (also known as Ordnance Engineering Academy)

The Ordnance Engineering College (军械工程学院), also known as the Ordnance Engineering Academy, was founded in 1949 and changed to its current name in 1986.¹⁵⁹ The school is located in Shijiazhuang, Hebei Province. In addition to training command cadres, the college also trains ordnance and equipment engineering technology, and management and command personnel.¹⁶⁰ It has a weapons testing center (兵器测试中心), an electronic testing center (电子测试中心) and 13 large-scale testing centers.¹⁶¹ The college has 353 classrooms and 132 laboratories (some of which are National Key Laboratories).¹⁶²

Wuhan Ordnance NCO School

The Wuhan Ordnance NCO School (武汉军械士官学校) was formally established in December 1992, when it was separated from the Ordnance Engineering College.¹⁶³ The school trains NCOs

¹⁵⁴ Information accessed at <http://baike.baidu.com/view/104760.htm> on 12 November 2012

¹⁵⁵ "Armored Force Technical College of the CPLA (中国人民解放军装甲技术学院)," in Zhao Yiping, *The Military History of the Chinese People's Liberation Army* (中国人民解放军军事), Beijing: China Encyclopedia Press, 2007, p. 732.

¹⁵⁶ Information accessed at <http://baike.baidu.com/view/104761.htm> on 12 November 2012.

¹⁵⁷ "PLA General Armament Department: China Defense Industry System Core (解放军总装备部:中国军工系统核心) accessed at www.360doc.com/content/11/12/14/11/5575132_172141966.shtml on 5 February 2012.

¹⁵⁸ <http://mil.news.sina.com.cn/2004-10-02/2125232507.html>

¹⁵⁹ www.chinamil.com.cn/site1/2008a/2008-06/02/content_1294567.htm

¹⁶⁰ Ibid.

¹⁶¹ "PLA General Armament Department: China Defense Industry System Core (解放军总装备部:中国军工系统核心) accessed at www.360doc.com/content/11/12/14/11/5575132_172141966.shtml on 5 February 2012.

¹⁶² www.chinamil.com.cn/site1/2008a/2008-06/02/content_1294567.htm

¹⁶³ www.chinamil.com.cn/site1/xwpdxw/2008-07/24/content_1376804.htm

on weapons and equipment common to all services. It is located in the Wuhan New Technology Development Zone.¹⁶⁴ The school focuses on training ordnance technicians and ammunition laboratory technicians, as well as providing specialized ordnance technical training.¹⁶⁵ The school has 22 fields of study.¹⁶⁶ These include: photonics (optics, surveying), radar systems, guns and artillery, and ammunition and missiles. In addition to technical training Wuhan Ordnance NCO school also trains NCOs in skill set building.¹⁶⁷

Research Organizations

Beijing Systems Engineering Research Institute

The Beijing Systems Engineering Research Institute (北京系统工程研究所) was established in 1986. It researches national defense science and technology development strategy, national defense system analysis and decision making, software engineering and computer network technology research, and new technology. In regards to strategic research, it conducts economic analysis, assessments, feasibility studies, and systems integration of decision making and large projects and provides its analysis to high level leaders and organizations.¹⁶⁸

Beijing Weapons and Equipment Feasibility Research Center

Beijing Weapons and Equipment Feasibility Research Center (北京武器装备论证研究中心) was originally the Naval Weapons Feasibility Research Center (海军装备论证研究中心). It has close to 70 laboratories and was established in 1983. It is responsible for feasibility studies of naval equipment.¹⁶⁹

Beijing Institute of Tracking and Telecommunications Technology

The Beijing Institute of Tracking and Telecommunications Technology (BITTT/北京跟踪与通信技术研究所) is located in the Haidian District of Beijing in Beijing's "Space City." It was established in 1965 and is China's comprehensive design organization for space TT&C. It conducts planning and design for TT&C centers, stations, and ships. It has completed overall technology planning and design of the TT&C of flights for many launch vehicles and satellites. It conducts research on TT&C technologies, wireless radio equipment, computer information management.¹⁷⁰

Space Flight Dynamics Technology Key Laboratory (

The Space Flight Dynamics Key Laboratory 航天飞行动力学技术重点实验室) was established by the Beijing Aerospace Control Center and Northwest Polytechnic University in 2011. The laboratory is the country's largest and most comprehensive said to be aimed at the cutting edge of international space flight dynamics research and to conduct basic research on space flight dynamics, and strategic key technical problems. It conducts orbital calculations and analysis for

¹⁶⁴ "PLA General Armament Department: China Defense Industry System Core (解放军总装备部:中国军工系统核心) accessed at www.360doc.com/content/11/12/14/11/5575132_172141966.shtml on 5 February 2012.

¹⁶⁵ www.allzg.com/n52503c628.aspx

¹⁶⁶ www.mod.gov.cn/service/2009-09/09/content_4086558.htm

¹⁶⁷ www.chinamil.com.cn/site1/xwpdxw/2008-07/24/content_1376804.htm

¹⁶⁸ "PLA General Armament Department: China Defense Industry System Core (解放军总装备部:中国军工系统核心) accessed at www.360doc.com/content/11/12/14/11/5575132_172141966.shtml on 5 February 2012.

¹⁶⁹ Ibid.

¹⁷⁰ Ibid.

deep space probes orbit determination and mission planning. The laboratory has more than 50 researchers and occupies more than 3,000 square meters of research space with more than 40 million yuan in support facilities and equipment.¹⁷¹

Engineering Research and Design Institute (工程研究设计研究总院)

No information was found on this organization.

Ordnance Technology Institute (总装备部军械技术研究所)

No information was found on this organization.

Military Software Test Center

Approved by the GAD in 2005, the Military Software Test Center (军用软件测评中心) conducts strict quality management and control and formulates and implements regulations. It has gathered several thousand test cases designed during test work over the years for the use of scientific personnel.¹⁷²

China National Defense Science and Technology Information Center

The China National Defense Science and Technology Information Center (中国国防科技信息中心) was established in March, 1959 and is a national-level information organization. Its library has over 2.6 million documents as well as extensive databases on weapons and equipment. In effect, the Center is an overt intelligence collection organization with a wide range of military and technical magazines and journals in just about every language. The Center also conducts research on military high technology, weapons systems development, and arms control, weapons and equipment management.¹⁷³

Artillery and Air Defense Equipment and Technology Research Institute

The Artillery and Air Defense Equipment and Technology Research Institute (炮兵防空兵装备技术研究所) conducts research on artillery and air defense equipment. In doing so it conducts theoretical research on innovation and incremental improvements to these weapons as well as researches new technologies and new materials. It conducts research on ground-to-ground missiles, artillery, surface-to-air missiles, and anti-aircraft artillery.¹⁷⁴

China Academy of Engineering Physics

The China Academy of Engineering Physics (CAEP/中国工程物理研究院) was founded in 1958 and is located at Mianyang, Sichuan Province. CAEP is a technology complex responsible for the research, development and testing of China's nuclear weapons.¹⁷⁵ It has 12 research

¹⁷¹ Chen Zhongchang, "Northwest Polytechnic University Participates in Building the Space Flight Dynamics Technology Key Laboratory (西工大参与建设航天飞行动力学技术重点实验室)," access at on 8 February 2012.

¹⁷² Liang Wei, "Pass Onsite Assessment by Military Laboratory Approval and Assessment Panel of General Armament Department, (通过总装军用实验室认可评审组现场评审), China Defense Industry News (中国军工报), 16 August 2011, p. 2.

¹⁷³ Jencks, "The General Armament Department," p. 285 and "PLA General Armament Department: China Defense Industry System Core (解放军总装备部: 中国军工系统核心) accessed at www.360doc.com/content/11/12/14/11/5575132_172141966.shtml on 5 February 2012.

¹⁷⁴ <http://mil.news.sina.com.cn/2004-10-02/0902232385.html>

¹⁷⁵ www.nti.org/facilities/702/

institutes, 100 laboratories, and more than 30 workshops, including six national defense key laboratories. CAEP's research areas include shock wave and detonation physics, nuclear physics, plasma and laser technology, material engineering, electronics, chemistry and chemical engineering, computers, and computational mathematics. It has more than 8,000 personnel, of whom 2,000 are technicians, nine are CAS academicians, and seven are CAE academicians.¹⁷⁶

CAEP also educates graduate and undergraduate students with 180 graduate fields of study and 220 undergraduate fields of study.¹⁷⁷

CAEP has a number of subordinate organizations:¹⁷⁸

- Applied Electronics Research Institute (应用电子学研究所)
- Beijing Applied Physics and Computer Mathematics Research Institute (北京应用物理与计算数学研究所)
- Beijing Graduate Student Department (北京研究生部)
- Center for Environmental Protection Engineering Research (环境保护工程研究中心)
- Chemical Engineering and Materials Research Institute (化工材料研究所)
- Computational Physics National Defense S&T Key Lab (计算物理国防科技重点实验室)
- Computer Application Research Institute (计算机应用研究所)
- Electronic Engineering Research Institute (电子工程研究所)
- Fluid Physics Research Institute (流体物理研究所)
- General Engineering Research Center (总体工程研究所)
- High-Power Laser Technology and Physics National Defense S&T Key Lab (高功率激光技术与物理国防科技重点实验室)¹⁷⁹
- High-Power Radiation National Defense S&T Key Lab (高功率强辐射国防科技重点实验室)
- High-Temperature and High-Density Plasma National Defense S&T Key Lab (高温高密度等离子体国防科技重点实验室)
- Laser Fusion Research Center(激光聚变研究中心)
- Mechanical Manufacturing Technology Research Institute (机械制造工艺研究所)
- National Center for Nuclear Technology (NCNT/国家核技术工业应用工程技术研究中心)¹⁸⁰
- National Engineering Research Center for Flue Gas Desulfurization (国家烟气脱硫工程技术研究中心)¹⁸¹
- National Municipal Pollution Processing and Resource Engineering Technology Research Center (国家城市污水处理及资源化工程技术研究中心)¹⁸²

¹⁷⁶ Information accessed at www.edu.cn/20011226/3015418.shtml on 19 September 2012.

¹⁷⁷ Ibid.

¹⁷⁸ <http://baike.baidu.com/view/196985.htm> on 19 September 2012.

¹⁷⁹ See the Chemistry and Chemical Engineering Department description online at www.caep.ac.cn/xkzf/wu/huaxue.htm, accessed 7 April 2005.

¹⁸⁰ www.ncnt.com.cn/show.aspx?id=3&cid=13 on 19 September 2012.

¹⁸¹ www.caep-tech.com/aboutus.asp?title=%C6%F3%D2%B5%BC%F2%BD%E9 on 19 September 2012.

¹⁸² www.nwtr.cn/about.aspx on 19 September 2012

- National X-Ray Digital Imaging Center (国家 X 射线数字化成像仪器中心)¹⁸³
- Nuclear Physics and Chemistry Research Institute (核物理与化学研究所)
- Radiation Key Laboratory (强辐射重点实验室)
- Shanghai Laser and Particle Physics Research Institute (上海激光等高能离子体研究所)¹⁸⁴
- Shock Wave Physics and Explosive Physics National Defense S&T Key Lab (冲击波物理与爆轰物理国防科技重点实验室)

CAEP has also established one company, CAEP Technology LLC (四川中物技术有限责任公司), to promote the transfer of technologies from CAEP to other companies.

Engineering Design Research Institute

The Engineering Design Research Institute (工程设计研究总院) was established in 1958.¹⁸⁵ In addition to military research,¹⁸⁶ this institute also builds stages and performance venues, such as large mechanized stage and theatre equipment.¹⁸⁷

Corps of Engineers No. 1 Scientific Research Institute (工程兵科研一所)

The Corps of Engineers No. 1 Scientific Research Institute (工程兵科研一所) research institute is located in Wuxi, Jiangsu Province. It specializes in research on river crossing bridge equipment, military engineering machinery, camouflage equipment, landmine equipment, and mine detection and engineering reconnaissance equipment development.¹⁸⁸ The institute has facilities with an advanced structural mechanics laboratory; an explosion laboratory; a proximity fuze technology laboratory; engineering mechanical drive performance laboratory; an optics, infrared, and microwave measurement laboratory; a detection and signals processing laboratory; an applied chemistry laboratory; and CAD workstations. The institute is also pursuing a Near-Ground and Shallow Surface Target Detection and Recognition Positioning Technology National Defense Science and Technology Key Laboratory (近地及地表浅层目标探测识别定位技术”国防科技重点实验室).¹⁸⁹

Corps of Engineers No. 2 Scientific Research Institute (工程兵科研二所)

The Corps of Engineers No. 2 Scientific Research Institute (工程兵科研二所) is located in Beijing, and conducts research similar to the Corps of Engineers No. 1 Scientific Research Institute.¹⁹⁰

Vehicle and Vessel Testing and Certification Research Institute (车船论证试验研究所, Unit 63969)

This research institute is located in Nanjing, Jiangsu Province.

¹⁸³ <http://nxdic.cn813.xx6xx.com/About.asp> on 19 September 2012.

¹⁸⁴ www.yingjiesheng.com/job-000-325-112.html on 19 September 2012.

¹⁸⁵ www.palmexpo.com/webceta/MoveMentDetail.aspx?ArcileD=4885

¹⁸⁶ Inference made based on a search for “总装备部工程设计研究总院” at Soopat.com on 6 May 2012.

¹⁸⁷ www.nacta.edu.cn/node/5464; www.palmexpo.com/webceta/MoveMentDetail.aspx?ArcileD=4885

¹⁸⁸ www.zsr.cc/PostdoctorHome/PostdoctorRecruit/200605/26205.html

¹⁸⁹ Ibid.

¹⁹⁰ Francis and Puska listed under GAD Centers and RIs

Northwest Institute of Nuclear Technology

The Northwest Nuclear Technology Research Institute (NINT/西北核技术研究所) is one of China's premier organizations conducting nuclear-related research. It is located in Xi'an, Shaanxi Province. NINT provided diagnostic support for China's nuclear weapons test program in China and now plays a role in verifying compliance with the Comprehensive Test Ban Treaty.¹⁹¹ The Institute is also reported to be involved in the development of directed energy weapons, specifically high powered microwave weapons.¹⁹² The Institute contains a large archive on nuclear explosions, nuclear warfare, and nuclear weapons design¹⁹³ and has more than 700 S&T staff, including approximately 200 researchers, associate researchers, and high-level engineers. It also has eight Chinese Academy of Sciences and China Academy of Engineering academicians.¹⁹⁴

NINT has 11 laboratories, a technology development department, a cobalt radiation research center (钴源辐照研究中心), a fiber optic technology center(光线技术中心), an acoustic positioning technology center(声定位技术中心), and a heat shrinking plant (热缩材料厂), a computing center, an experimental processing plant (实验加工厂), an electrical and radiometry station (电学和放射性计量站), the Shanxi National Defense Zone Measurement Station (陕西省国防区域计量站), and the Sixth Standards Laboratory (第六校准实验室).¹⁹⁵

NINT also is home to the Laser and Material Interaction Utilization State Key Lab (激光与物质相互作用国家重点实验室).

NINT offers doctorates in nuclear technology and applications, and graduate degrees in inorganic chemistry, engineering mechanics, physical electronics, electromagnetic fields and microwave technologies, signal and information processing, and nuclear technology and applications.¹⁹⁶

The U.S. Bureau of Export Administration (BXA) in 1999 added NINT to the Entity List along with five other Chinese entities. As a result of these additions to the Entity List, a license is required for the export or re-export of all items subject to the Export Administration Regulation (EAR) to NINT.¹⁹⁷

NINT's research areas include:

- Computer applications

¹⁹¹ Information accessed at www.nti.org/facilities/711/ on 19 September 2012.

¹⁹² Mark Stokes, *China's Strategic Modernization: Implications for the United States*, Carlisle: Strategic Studies Institute, 1999, p. 203.

¹⁹³ Information obtained from the Nuclear Threat Initiative website at www.nti.org/db/China/nwint.htm accessed on 26 August 2008.

¹⁹⁴ Background information obtained from the College and University Student Recruitment Network (高校招生网) at www.baokao.net/mbyx/school8.asp?classid=117102101&username=%CE%F7%B1%B1%BA%CB%BC%BC%CA%F5%D1%D0%BE%BF%CB%F9, accessed on 26 August 2008.

¹⁹⁵ Information accessed at <http://cy.eol.cn/20011213/3013923.shtml> on 24 September 2012.

¹⁹⁶ Ibid.

¹⁹⁷ Information accessed at www.nti.org/facilities/711/ on 19 September 2012.

- Computational physics
- Computational mathematics Electronic field and microwave technology
- Control theory and control engineering
- Electromagnetic pulse technology
- Engineering mechanics
- Explosion theory and application technology
- High powered microwaves
- Inorganic chemistry
- Inorganic fluoride synthesis and application technology
- Lasers
- Mechanical diagnostic technology
- Nuclear radiation effects
- Nuclear technology and applications
- Particle physics
- Physical electronics
- Pulse power technology
- Pulsed radiation monitoring technology
- Radiation and its interaction with materials
- Radiation chemistry and radiation analytical chemistry
- Radiation fluid dynamics
- Radiation monitoring and imaging
- Shock, vibration and noise, and automatic control technology Signal and information processing
- Solid material dynamic properties of the strong-dynamic loading experiments¹⁹⁸

NWINT has a comprehensive laboratory system, which has reportedly developed the following products:

- 300,000 Curie cobalt bombs (30 万居里钴源)
- “Dawn” Accelerator (“晨光号”加速器)
- DPF-200 Pulse X-beam (DPF—200 脉冲 X 射线)
- Pulse reactor (如脉冲反应堆)
- “Flash 2” High-current Relativity Electron Beam Accelerator (“闪光二号”强流相对论电子束加速器)
- “Glare” High-dosage Gamma and X-Beams (“强光一号”高剂量率 γ 和 X 射线)
- High-power microwave using alternative power sources (不同功率的高功率微波源)
- Laser resonating ionization mass spectrum system (激光共振电离质谱系统)
- Milky Way-III 10,000,000,000 parallel machines and large-scale experimentation equipment (银河—III 百亿次并行计算机等大型实验设备)¹⁹⁹
- Neutron generator (中子发生器)
- Series of accurate member lasers (系列准分子激光器)

¹⁹⁸ Information accessed at <http://baike.baidu.com/view/4796175.htm> on 24 September 2012.

¹⁹⁹ Ibid.

- “Spring Thunder” Large-scale Boundary Wave Electromagnetic Pulse Analog Calculator
(“春雷号”大型有界波电磁脉冲模拟装置)

Small Arms Theoretical Evaluation Research Institute (轻武器论证研究所)

No information is available on this institute.

Chapter Eight: The PLA Army/Ground Forces

Dennis J. Blasko¹

The Chinese government has set out the general outline of its strategic intentions for the modernization of the People's Liberation Army (PLA) in its series of White Papers on national defense since 1998.² Details about the PLA's force structure, strategy, doctrine, and progress in training have been defined further in many books, essays, and articles in the Chinese military and security media, though finding and extracting relevant details often can be difficult. Additionally, continuing analysis of changes to PLA force structure and doctrine, based on new and/or more accessible Chinese sources, has added to and refined outside knowledge of recent developments.

While much can be learned from a close reading of the White Papers and official Chinese media, many operational-level and tactical-level details have not been discussed fully in official sources. For example, the Chinese government still has not revealed how many personnel are assigned to each of the services nor has it stated the size of each service's annual budget.

Despite cuts of about 700,000 personnel executed in two rounds of force reductions since 1997, the PLA Army (or ground force) is estimated to remain the largest of the services, with somewhere in the range of 1.6 million personnel (although it is likely getting smaller), comprising over 60 percent of the total active-duty force.³ Though priority in development has been given to the Navy (PLAN), Air Force (PLAAF), and Second Artillery (PLASAF), the Army also has undergone tremendous change over the past 15 years.⁴

The Army is now over 25 percent smaller in manpower with at least 25 percent fewer main force troops units than in 1997; border and coastal defense units do not appear to have undergone similar cuts. Over that same period, it has created or expanded a relatively small number of new, more technologically-advanced units (such as special operations, helicopter, transport ship, and information units) in all military regions and downsized and restructured many older units (particularly infantry and tank units). It has also introduced a wide array of new equipment, but, for the most part, older legacy weapons and equipment continue for the time being to outnumber the newer items in the inventory. The Army has become more mechanized and better equipped with modern communications and electronics (as part of the "informationization" of the force), but is estimated to take the remainder of this decade before it can claim to be fully mechanized

¹ This chapter draws from, updates, and expands information found in the second edition of the author's book, *The Chinese Army Today: Tradition and Transformation for the 21st Century*, London: Routledge, 2012. Thanks to McKenzie A. Hall for creating the maps found in the appendixes.

² Links to English-language translations of all Chinese government White Papers are found at http://english.gov.cn/official/2005-08/17/content_24165.htm. Chinese language versions are found at www.gov.cn/zwgk/2005-06/02/content_3618.htm.

³ James Hackett (ed.), *The Military Balance 2012*, London: The International Institute for Strategic Studies, 2012, p. 235. The U.S. Department of Defense report *Military and Security Developments Involving the People's Republic of China 2011*, p. 70 states the total number of ground force personnel is 1.25 million, but it does not provide numbers for the other services. If DoD is correct and the Chinese number of 2.3 million for active-duty PLA forces is correct, then there has been significant growth in the size of the Navy, Air Force, and/or Second Artillery.

⁴ *China's National Defense in 2004*, December 2004, accessed at http://english.gov.cn/official/2005-07/28/content_18078.htm on 18 November 2012.

and decades beyond that before it becomes fully informationized. Its system of professional military education institutions is making adjustments to accommodate the changes in PLA personnel size, force structure, doctrine, and training. Despite the reduction in the number of personnel and units, the Army's combat and non-traditional security capabilities have improved due to force structure and equipment changes and improvements in training and logistics (which will not be examined in this chapter). Nonetheless, many obstacles remain to be overcome, not least of which are in command and control and training, before the Central Military Commission (CMC) is confident in the Army's ability to conduct joint and combined arms operations.

This chapter describes China's intentions for building the Army as described in the White Papers, changes in the overall composition of the Army, force structure from military region (MR) down to division/brigade level, and the professional military education organizations involved in preparing PLA personnel to plan for and execute its new doctrine from 1997 to late 2012. Among its conclusions is that PLA Army force structure is consistent with the PLA's self-defensive doctrine and multi-level deterrence strategy.⁵

China's Strategic Intentions in "Army Building"

In 1998, the first *China's National Defense* described the following objectives in a section on "Streamlining the army the Chinese way":

Reducing quantity and improving quality is a basic principle upon which the army is to be modernized. The Chinese army strengthens itself by relying on science and technology, and strives to make the transition from a numerically superior type to a qualitatively efficient type, and from a manpower-intensive type to a technology-intensive type. In view of the characteristics of modern wars, no effort will be spared to improve the modernization level of weaponry, reform and perfect the army system and setup, and improve the training of troops and curricula and teaching methods of military academies.⁶

The PLA's main objective is to create a smaller, more technologically-advanced force. Weapons and technology are important, but force structure changes ("the army system and setup") and training and education also are highlighted. The PLA consistently has identified the "software" component of its modernization process to be of equal importance as upgrading its "hardware." The 1998 White Paper identified the "basic objectives of China's defense policy" as "Consolidating national defense, resisting aggression, curbing armed subversion, and defending the state's sovereignty, unity, territorial integrity and security.... to avoid and curb [deter] war, and to solve international disputes and questions left over by history through peaceful means." China's defense policy also contains the following components, the most basic of which are the subordination of military modernization to national economic development and its strategically defensive posture:

⁵ China's concept of deterrence is explained in Peng Guangqian and Yao Youzhi (eds), *The Science of Military Strategy* (战略学), Beijing: Military Science Publishing House, pp. 213-229.

⁶ *China's National Defense*, "National Defense Policy," July 1998, accessed at www.china.org.cn/e-white/5/5.2.htm on 18 November 2012.

- “Subordinating national defense work to, and placing it in the service of, the nation’s overall economic construction, and achieving the coordinated development of these two kinds of work. This is China’s long-term basic policy for its work in defense.”
- “Strategically China pursues the defensive policy featuring self-defense and gaining mastery by striking only after the enemy has struck... China upholds the principle of self-defense by the whole people and the strategic concept of people’s war, and works hard to enhance the defense consciousness of the whole people, perfect the defense mobilization system and intensify the building of the reserve force for defense. On the basis of its existing weaponry, China carries forward and develops its fine traditions.”
- “China does not seek hegemonism, nor does it seek military blocs or military expansion. China does not station any troops or set up any military bases in any foreign country. China opposes the arms race...”

Subsequent White Papers have shifted priorities slightly or modified some of the wording, but the basic principles and objectives of PLA modernization continue intact despite a defense budget that has grown from about \$10 billion (81.257 billion yuan at an 8.29 exchange rate) in 1997 to roughly \$106 billion (670 billion yuan at a 6.3 exchange rate) in 2012.⁷

The 2006 White Paper defined “the strategic goal of building informationized armed forces and being capable of winning informationized wars by the mid-21st century.”⁸ That objective was modified in 2008 to “by and large reach the goal of modernization of national defense and armed forces by the mid-21st century.”⁹ This latter modification leaves open the specifics of what type of war the PLA should be prepared to fight in 2049, thus allowing for continued modifications to PLA force structure and doctrine based on conditions at the time.

The 2010 White Paper added “maintaining social harmony and stability” as a “critical task” for all the armed forces (which include the PLA, People’s Armed Police, and militia) and specified that “accomplishing mechanization and attaining major progress in informationization by 2020” was the PLA’s primary near-term goal.¹⁰ This statement recognizes that all of the PLA *will not* be fully informationized by 2020. Moreover, it does not specify any particular warfighting objectives to be accomplished by that date.

The development of the Army over the past 15 years has followed all these principles as it has made “its units small, modular and multi-functional in organization through appropriate downsizing and structural reform.” Currently, the Army “is accelerating the development of aviation, light mechanized and information countermeasure forces, and gives priority to the

⁷ Ibid and “China’s defense budget to grow 11.2 pct in 2012: spokesman,” *Xinhua*, 4 March 2012, accessed at <http://english.peopledaily.com.cn/102775/204254/204390/7747223.html> on 21 July 2012. It is worth noting that while the dollar amount of the officially announced Chinese defense budget has grown by a factor of about 10.6 since 1997, the amount of growth in terms of *renminbi* is about 8.2 times the 1997 budget reflecting the difference in exchange rates.

⁸ *China’s National Defense in 2006*, “National Defense Policy,” December 2006, accessed at www.china.org.cn/english/features/book/194485.htm on 18 November 2012.

⁹ *China’s National Defense in 2008*, “National Defense Policy,” January 2009, accessed at http://english.gov.cn/official/2009-01/20/content_1210227_4.htm on 18 November 2012.

¹⁰ *China’s National Defense in 2010*, “National Defense Policy,” March 2011, accessed at http://english.gov.cn/official/2011-03/31/content_1835499_4.htm on 18 November 2012.

development of operational and tactical missile, ground-to-air missile and special operations forces.”¹¹ Underscoring the priorities listed above, in April 2012 the Army paper, the *PLA Daily*, stated that the army aviation force has been given precedence for development during the 12th Five-Year Plan.¹²

The Army’s operational goals are to build capabilities for “mobile operations and three-dimensional offense and defense” as it moves “from regional defense to trans-regional mobility... to increase its capabilities for air-ground integrated operations, long-distance maneuvers, rapid assaults and special operations.”¹³ For the PLA, as demonstrated in a series of exercises conducted beginning in 2006, “trans-regional mobility” means the ability to deploy forces from one military region to another and along China’s coast, not the capability to project force far beyond China’s borders.

The remainder of this chapter provides information about the Army’s organization and force structure that demonstrates the pursuit of these goals. In addition (though beyond the scope of this chapter), a review of the Army’s training program over the past decade would also indicate that the reorganized force is training to achieve these objectives. Thus, the White Papers have presented the general blueprint for Army development and the official Chinese media have provided many confirming details.

Army Force Structure Changes

Prior to the beginning of the 1997 force reduction (and before the first White Paper was issued), *The Military Balance 1996/97* gave the size of the Army to be 2,200,000 (out of about 2,935,000 total active-duty personnel). Its forces were assigned to 24 group armies or under the command of military region or military district headquarters as “independent” or “local forces.” Maneuver forces (infantry and armored units) assigned to the group armies consisted of 73 infantry divisions (including two to five mechanized infantry divisions), 11 tank divisions, and 13 tank brigades. Independent units were listed as five infantry divisions, one tank division, and two infantry brigades. Local forces (garrison, border, and coastal) included 12 infantry divisions, one mountain brigade or division, four infantry brigades, 87 infantry regiments, and seven helicopter regiments.¹⁴ In total, this amounted to 102 infantry and tank divisions and 20 brigades. (Not included in this summary were the 87 infantry regiments, most of which likely were border and coastal units, tasked mainly with early warning and static defense missions, with only limited offensive and maneuvering capability).

In 2012, as mentioned earlier, the total number of ground force personnel is estimated to be about 1.6 million, at least 600,000 fewer (27 percent smaller) than before the reductions. The Chinese White Papers list 18 group armies (which can be independently confirmed through media sources as accurate), six fewer (25 percent smaller) than in 1997.

¹¹ *China’s National Defense in 2008*.

¹² “Writing Good ‘Strategies and Plans’ for an Army That is Becoming Airborne” (写好飞行化陆军的“隆中对”), *PLA Daily*, accessed 26 April 2012, at http://chn.chinamil.com.cn/tzjl/2012-04/26/content_4844689.htm on 21 July 2012.

¹³ *China’s National Defense in 2008*.

¹⁴ *The Military Balance 1996/97*, London: The International Institute for Strategic Studies, 1996, p. 179. The late 1990s, the PLA began calling “tank” units “armored” units.

Based on the order-of-battle listing to follow, the number of infantry and armored divisions now is about 30, which is 72 fewer than before, along with a total of about 48 infantry and armored brigades, 28 more than before the force reductions. (These numbers do not include border and coastal defense units.) Most of the reduction in the number of divisions comes from the infantry force (down from 90 divisions to 26), with the armored force now amounting to four divisions and 14 brigades (down from 12 divisions and 13 brigades). Moreover, mechanized infantry units currently are found in all of the military regions, for a total of 10 divisions and ten brigades, amounting to nearly half of the infantry force, up from only about five percent of infantry divisions before reductions started. The size of the Army Aviation Corps has also expanded in number of units as well as the number of aircraft. The number of Army Special Operations Forces (SOF) has expanded slightly and possibly in the number of personnel in each unit. These force structure changes are summarized in Tables 1 and 2 and, along with information in the remainder of this chapter, are consistent with the objectives identified in the 2008 White Paper. (The entry for “Brigade-equivalents” in the table below is a rough illustration of the decrease in the number of infantry and armored “boots on the ground” that can be generated by the Army’s force structure over time. This decrease in number would be offset by increased capabilities in the units through new equipment and firepower and the additional capabilities added by the increased numbers of helicopter, SOF and information units.)

Table 1: Army Maneuver (Infantry, Armored, Helicopter, and SOF) Units

Army Maneuver	1997	2012
Group armies	24	18
Infantry divisions	90	26
Armored divisions	12	4
Infantry brigades	7	34
Armored brigades	13	14
Brigade-equivalents*	224	108
Army aviation regiments/brigades	7/0	9/4
SOF groups/regiments/brigades	7/0/0	3/1/5

* Brigade equivalent = 5 battalions; 1 division = 2 brigade equivalents.

As main force units (or mobile combat units/机动作战部队) have been reduced in number and size, but upgraded in firepower and mobility, the number of static Army border (边防) and coastal (海防) units has not changed significantly since 1997 (though we now may have a better understanding of this force’s structure). Currently the ground force includes approximately 56 border defense regiments, nine border defense battalions (not part of regiments), five patrol craft (small boat) units, two coastal defense divisions, three coastal defense brigades, 32 coastal defense and artillery regiments, and four coastal defense battalions. In total, approximately 200,000 or more active-duty PLA ground force personnel are assigned to this mission (over 12 percent of all Army personnel).¹⁵

¹⁵ These numbers are found in Dennis Blasko, “PLA Ground Force Modernization And Mission Diversification: Underway In All Military Regions,” in Roy Kamphausen and Andrew Scobell (eds) *Right-Sizing the People’s Liberation Army: Exploring the Contours of China’s Military*, Carlisle, Pa.: U.S. Army War College, 2007, p. 309.

Table 2: Army Maneuver Divisions and Brigades by Military Region

	Mechanized Infantry Divisions	Motorized Infantry Divisions	Armored Divisions	Mechanized Infantry Brigades	Motorized Infantry Brigades	Armored Brigades
SYMR	2	2		3	5	3
BJMR	2	2	2	2	4	1
LZMR	1	4		2	2	2
JNMR	1	1	1	1	4	2
NJMR	1	2	1	1	5	2
GZMR	2	2			2	2
CDMR	1	3		1	2	2
Total	10	16	4	10	24	14

Changes to the Army's force structure and reductions in the number of units and personnel have occurred through a variety of means.

- First, entire units were disbanded. This happened to headquarters, such as the six group army headquarters that were abolished, as well as to full divisions and brigades and many other support units.
- Some units previously assigned to headquarters that were disbanded were transferred to other headquarters that remained.
- Many divisions were downsized to brigades. This mostly happened to infantry divisions, but since late 2011 armored divisions also have been restructuring.
- The infantry and armored divisions that remain in the force were restructured to be composed of only three maneuver regiments instead of the four regiments as previously found in a full-strength division based on the Soviet model.
- Remaining divisions and brigades were reorganized to become different types of units, such as the creation of amphibious mechanized infantry divisions and light mechanized infantry divisions and brigades.
- Some units were transferred to other services or the People's Armed Police (PAP). In the late 1990s, an infantry division was transferred to the PLAN and downsized to become the second Marine brigade. At about the same time, 14 Army divisions were transferred to the PAP and reorganized to become "mobile divisions" responsible for domestic security. At the end of 2010, two short-range ballistic missile brigades, which had been created earlier in the decade as Army units in the Nanjing and Guangzhou MRs, were reflagged as Second Artillery brigades.¹⁶
- Some units were transferred from the active-duty PLA force into the PLA reserves.

¹⁶ Mark Stokes, "Expansion of China's Ballistic Missile Infrastructure Opposite Taiwan," AsiaEye, April 18, 2011, accessed at <http://blog.project2049.net/2011/04/expansion-of-chinas-ballistic-missile.html> on 21 July 2012.

At the same time, several new units were added to the force and a few were expanded in size and organizational level. But the number of new and expanded units is much smaller than the number of units that were eliminated or downsized.

New equipment of all types has been added to the inventory as many older pieces have been retired. Simultaneously, many existing models of weapons and equipment have been upgraded with more advanced communications and computers and subcomponents as part of the larger trend of informationization of the force. Because the overall size of the force is smaller, not as much new equipment is now necessary as would have been required prior to the force reductions and restructuring.

Nonetheless, most units still are composed of a mix of older and newer equipment. A review of the numbers found in *The Military Balance* for the various types of equipment in the Army concludes that only about a third of all ground force major equipment would be considered “new” or “modern.” For example, according to *The Military Balance*, out of a total of over 7,400 main battle tanks, 4,300 are Type 59-series with only 1,800 Type 96/96A/96G and 500 Type 98A/99/99A2 (the two newer types accounting for about 31 percent of all main battle tanks).¹⁷ Both the Type 96 and Type 98 were displayed in the 1999 military parade in Beijing. Their numbers can only be described as growing gradually over the following 13-year period (on average being assigned to one or two regiments per year) and are now found in all military regions. The fact that multiple types and variants of the same class of equipment are deployed to the force complicates the logistics and training problems facing the PLA as it modernizes. For example, *The Military Balance* lists five different types of main battle tanks in the PLA inventory (Type 59, Type 79, Type 88, Type 96, and Type 98/99), each with multiple variants. The same situation exists for infantry fighting vehicles, armored personnel carriers, artillery, and helicopters.

Over the past 15 years, the PLA has introduced a number of different types of unmanned aerial vehicles (UAVs) into the force. Some of them are short-range, hand-held models, while others are larger with longer ranges and flight duration. Artillery, reconnaissance, SOF, electronic warfare, and communications units have experimented with using UAVs mostly for reconnaissance and communications relay purposes.¹⁸ So far, no armed UAVs are reported to have entered the Army’s inventory.

Unit reorganization and restructuring continues in the second decade of the new century using many of these same methods. Evidence clearly shows that the PLA Army is becoming both smaller quantitatively and more technologically-advanced, just as the Chinese government publicly defined its goals in 1998.

Current Army Force Structure

The PLA ground force is composed of numerous branches or arms (兵种), specialized units (专业部队), and support units (保障部队):

¹⁷ *The Military Balance 2012*, p. 234.

¹⁸ CCTV-7, Military Report, 25 December 2010, 26 July 2011, 17 September 2011, 9 October 2011, and 29 October 2011.

- Infantry, divided into motorized (using trucks), light and heavy mechanized (using wheeled or tracked armored personnel carriers/infantry fighting vehicles), and mountain units
- Armored, with both tank and mechanized infantry units
- Artillery, using both towed and self-propelled artillery, multiple rocket launchers, and anti-tank guns and missiles
- Air defense, including anti-aircraft artillery (AAA) and surface-to-air missile (SAM) units (army formations with a combination of AAA guns and SAMs are called “air defense” units; part of the modernization process includes transforming older AAA units to air defense units by introducing SAMs into existing units)
- Army aviation, primarily using helicopters, but also with a few small fixed-wing aircraft
- Engineers, including combat and construction, pontoon bridge, camouflage, and water supply units
- Chemical defense, providing nuclear, biological, and chemical defense and including flame thrower and smoke generating units
- Communications, both mobile and fixed
- Electronic warfare (EW), including electronic countermeasure (ECM) units
- Reconnaissance
- Mapping
- Logistics, including supply (quartermaster), petroleum, oil, and lubricants (POL), medical, and transportation units including both truck and ship units
- Armament units, responsible for equipment maintenance, repair, and ammunition storage¹⁹

To augment existing reconnaissance units, in the 1990s Special Operations Forces (特战队) were created to add new capabilities and extend the Army’s operational reach. Each military region eventually was assigned an SOF group (大队). (In a parallel development, PLAN Marine and PLAAF airborne units also have created SOF units.) In 2011 and 2012, five SOF groups were identified as having been upgraded to brigades (in the Beijing, Lanzhou, Nanjing, Guangzhou, and Chengdu MRs).²⁰ In what may be a related development, an SOF regiment appears to have been established in the Xinjiang Military District in addition to the SOF group assigned to the

¹⁹ The list of arms and branches is found in China’s National Defense in 2002. Chinese sources do not include logistics and armament units as separate branches. They are included in this listing because of their increasing importance to the PLA.

²⁰ The Beijing MR SOF brigade is mentioned in “Special Operations Vanguard Focus on Mission Strengthening Skills (特种尖兵着眼使命强本领),” *PLA Daily*, 17 July 2012, accessed at http://reader.chinamil.com.cn/ldxc/content/2012-07/17/content_4953445.htm; the Lanzhou SOF brigade is the subject of “Lanzhou MR SOF Brigade Passes through Helan Mountains (兰州军区某特种作战旅闯关贺兰山),” *Xinhua*, 4 June 2012, accessed at http://news.xinhuanet.com/mil/2012-06/04/c_123231731.htm; the Nanjing MR SOF brigade is referenced in “Nanjing MR SOF Brigade: ‘Returnees’ Eat ‘meat and Potatoes’(南京军区某特种作战旅: “海归”咋成“香饽饽”),” *PLA Daily*, 20 February 2012, accessed at http://chn.chinamil.com.cn/wy/2012-02/20/content_4795528.htm; the Guangzhou MR SOF brigade is mentioned in “Chinese Eagles Bright Wings Andes (中国雄鹰亮翅安第斯山),” *PLA Daily*, 11 July 2011, accessed at http://chn.chinamil.com.cn/xwpdxw/2011-07/11/content_4462756.htm; and the Chengdu MR SOF brigade at “MND Organizes Attache Trip to Chengdu MR (国防部组织驻华武官赴成都战区参观考察),” *PLA Daily*, May 15, 2012, accessed at www.chinamil.com.cn/jfjbmap/content/2012-05/15/content_5246.htm on 1 August 2012.

Lanzhou MR.²¹ Likewise, Tibet Military District also has its own SOF group in addition to the Chengdu MR SOF group.²² The appearance of these two new units reflects the size and remoteness of Xinjiang and Tibet as well as Chinese perceptions of terrorist threats to western China.

As part of the attention paid to the PLA's electronic warfare and cyber warfare capabilities, over the past decade foreign analysis has shed light upon ten Technical Reconnaissance Bureaus (技术侦察局) assigned to the military regions. These units are part of the system overseen by the General Staff Department Third Department (Technical Reconnaissance). They conduct "communications intelligence, direction finding, traffic analysis, translation, cryptology, computer network defense, and computer network exploitation" in support of military region operations.²³ The importance of cyber operations in modern warfare has increased the significance of these units in understanding PLA force structure and doctrine.

PLA Army units come under the command of headquarters at the MR, provincial military district (MD)/garrison level, and military subdistrict (MSD)/garrison levels. People's Armed Forces Departments (PAFD) headquarters are found at county and grassroots (township or sub-district) levels. MD, MSD, and PAFD are considered local headquarters.

Military Regions – Regional Headquarters

The Chinese mainland is divided into seven large military regions each covering two or more provinces, autonomous regions, or four centrally-administered cities (municipalities). Military regions have military region leader level organizational grade levels and are named after the city in which their headquarters is located. In 2012, the seven MRs (in protocol order) are structured as follows:

- Shenyang MR, consisting of the Liaoning, Jilin, and Heilongjiang MDs and includes the northeastern part of Inner Mongolia (mostly east of the 120 degree line of longitude²⁴)
- Beijing MR, consisting of the Beijing and Tianjin Garrisons and the Hebei, Shanxi, and Inner Mongolia (west to about the 107 degree line of longitude and east to about the 120 degree line of longitude) MDs

²¹ "Sky Wolf Strike – Note: Xinjiang Military District Regimental Commander Wang Junxian (‘天狼’突击——记新疆军区某团团长王军贤)," *PLA Daily*, 1 April 2012, accessed at http://chn.chinamil.com.cn/jr/2012-04/01/content_4825955.htm on 21 July 2012.

²² "National Dedicates Exemplary Candidates 420 Jiangyong Xirao (全国敬业奉献模范候选人 420 江勇西绕)," *Guangming Net*, 19 June 2009, accessed at www.gmw.cn/01gmr/2009-06/19/content_936885.htm on 21 July 2012. A Chinese blog listed all PLA SOF units as of February 2012, but is no longer available, accessed at <http://duchuanren.blog.163.com/blog/static/31648781201211015056368/> on 13 April 2012.

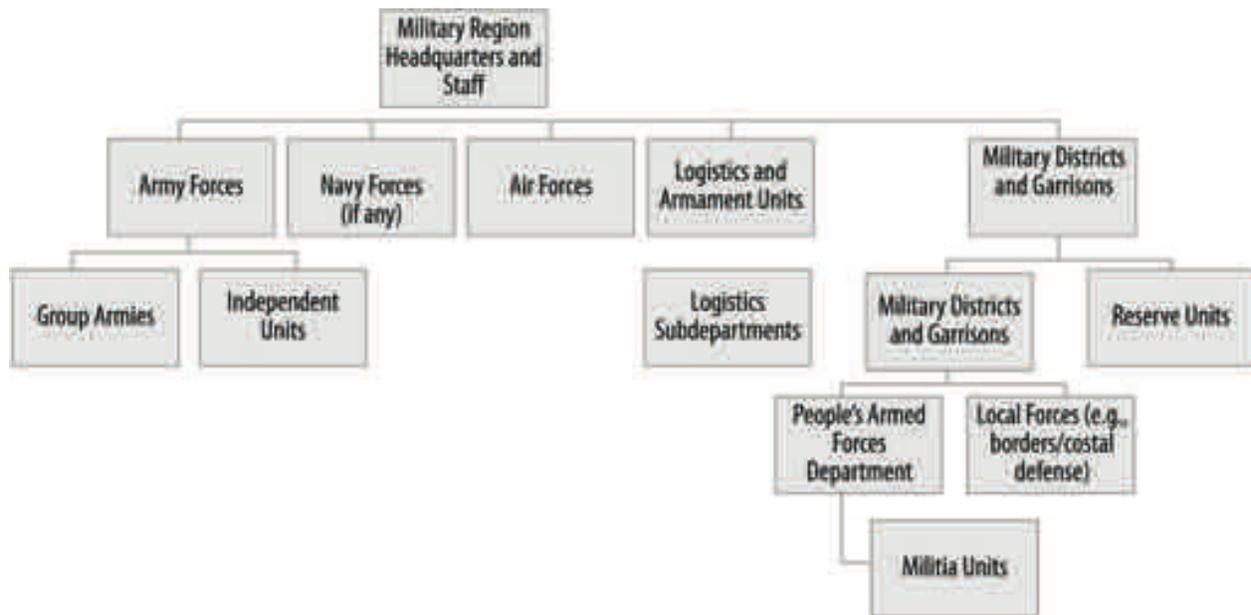
²³ Mark Stokes, Jenny Lin, and L. C. Russell Hsiao, "The Chinese People's Liberation Army Signals Intelligence and Cyber Reconnaissance Infrastructure," Project 2049 Institute, 11 November 2011, pp. 11-13 accessed at http://project2049.net/documents/pla_third_department_sigint_cyber_stokes_lin_hsiao.pdf on 21 July 2012. This study is an exemplary model of open source analysis, adding another feather to Mark Stokes' already well-adorned cap.

²⁴ The boundaries of the Shenyang, Beijing, and Lanzhou MRs are depicted differently from previous maps of the Military Regions in the Office of the Secretary of Defense, Annual Report to Congress, Military and Security Developments Involving the People's Republic of China 2011," p. 73.

- Lanzhou MR, consisting of the Shaanxi, Gansu, Qinghai, Ningxia, Xinjiang, Nanjiang (southern Xinjiang) MDs and the western part of Inner Mongolia (east to about the 107 degree line of longitude)
- Jinan MR, consisting of the Shandong and Henan MDs
- Nanjing MR, consisting of the Shanghai Garrison and the Jiangsu, Zhejiang, Anhui, Fujian, and Jiangxi MDs
- Guangzhou MR, consisting of the Hunan, Guangdong, Guangxi, Hainan, and Hubei MDs
- Chengdu MR, consisting of the Chongqing Garrison and the Sichuan, Xizang (Tibet), Guizhou, and Yunnan MDs

Each MR commander shares responsibility with a political commissar (PC), both are military region leader-grade officers. The commander is assisted by three to five Army deputy commanders (who are military region deputy leader-grade officers), the regional air force commander (dual-hatted as an MR deputy commander), and a naval fleet commander in the Jinan, Nanjing, and Guangzhou MRs (also dual-hatted as an MR deputy commander). Army deputy commanders each are assigned individual portfolios, such as operations, logistics, or armament. The MR political commissar is assisted by two or three deputy political commissars. These personnel form the nucleus of the MR-level party committee with the political commissar normally acting as first secretary.

Figure 1: Military Region Structure



* In peacetime, the chain of command for PLAN and PLAAF units located in an MR also runs to service headquarters in Beijing. In time of war, they may be assigned to war zone headquarters to take part in military operations.

MR staffs parallel, but are smaller than, the organization of the four General Departments. Each MR has a Headquarters Department (consisting of operations, intelligence, informationization, etc.) overseen by a chief of staff, Political Department, Joint Logistics Department (JLD), and Armament Department. In addition to leading the work of the headquarters department, the chief of staff oversees the directors of the JLD and Armament Department. The chief of staff and director of the Political Department are military region deputy leader-grade officers, while the directors of the directors of the JLD and Armament Department are corps leader-grade officers. The directors of the second-level staff departments (operations, intelligence, informationization, etc.) in MR headquarters are division leader-grade officers. Each department is manned by a number of lower-grade staff officers whose job it is to assist the commander, PC, and their deputies to plan, coordinate, monitor, and supervise their respective functional activities within the MR, such as training, intelligence, firepower support, logistics, etc. They interact routinely with the four General Departments in Beijing, with their respective staff offices in lower-level headquarters in the MR and with the staff offices in other MRs and services as necessary.

The following table provides information about the grade and rank structure for MR headquarters.

Table 3: Military Region Headquarters Organization²⁵

Grade	Leaders (Ranks)	Headquarters Department (Ranks)	Political Department (Ranks)	Joint Logistics Department (Ranks)	Armament Department (Ranks)
MR Leader	MR Commander and PC (GEN/LTG)				
MR Deputy Leader	Deputy Commanders & Deputy PCs (LTG/MG)	Chief of Staff (LTG/MG)	Director (LTG/MG)		
Corps Leader		Deputy Chiefs of Staff (MG/LTG)	Deputy Directors (MG/LTG)	Director/PC (MG/LTG)	Director/PC (MG/LTG)
Corps Deputy Leader				Deputy Directors (MG/SCOL)	Deputy Directors (MG/SCOL)
Division Leader		2 nd Level Departments and Directors (SCOL/MG)			
Division Deputy Leader		2 nd Level Deputy Directors (COL/SCOL)			

Subordinate to MR headquarters are:

- 1) Main force army units organized into group armies or independent units of division, brigade, or regimental size
- 2) Logistics units organized into joint logistics subdepartments (JLSD/联勤分部) and armament support (repair/maintenance) units
- 3) Provincial Military Districts and Garrison Commands for the four centrally-administered cities of Beijing, Tianjin, Shanghai, and Chongqing controlling local forces that may include both active and reserve combat and logistics/armament units as well as border and coastal defense units.

PLAN and PLAAF units in the region apparently have a dual chain of command, reporting directly to service headquarters in Beijing in peacetime, but may come under direct MR (or theater/war zone) command during war. Second Artillery units located in the MR report directly to Second Artillery headquarters in Beijing; conventional Second Artillery units may be assigned to support war zone operations in time of war.

²⁵ Adapted from Kenneth W. Allen's chart within this volume.

During peacetime, MR headquarters are administrative organizations charged to prepare the forces in their regions to accomplish the specific missions assigned to each MR. Depending on their location and geographical situation, the various MRs have differing orientations and force composition.

In time of emergency, MR headquarters are likely to be formed into temporary operational war zone headquarters to conduct military or non-traditional security operations. These *ad hoc* wartime headquarters would be formed around the structure of an MR headquarters, but could be augmented, and perhaps commanded, by officers from higher headquarters in Beijing. The boundaries of a war zone will not necessarily correspond directly with the pre-existing MR boundaries, but will vary according to the operational objectives assigned to the war zone.

Local Headquarters

Each Military District headquarters is responsible for a single province or autonomous region and bears its province or region's name, such as Hebei MD, and, with one exception, are corps leader-grade organizations. The Xinjiang MD is different from the other MDs as it is assigned a military region deputy leader organizational grade.²⁶ As such, Xinjiang MD is able to have under its command the corps leader-grade Nanjiang MD (southern Xinjiang).

The Beijing Garrison is called a *weishuqu* (卫戍区) and is an MR deputy leader-grade organization. As such, the Beijing Garrison commander is concurrently a Beijing MR deputy commander. The garrison headquarters for the other three municipalities of Tianjin, Shanghai, and Chongqing are called *jingbeiqu* (警备区) and share the same corps leader organizational grade level and responsibilities as MD headquarters.

MD commanders and political commissars are responsible for local and reserve forces (both reserve units and militia units) in their province and for mobilization preparations. MD commanders and political commissars are assisted by deputy commanders, deputy political commissars, and staffs similar to, but smaller than, MR headquarters.

Active-duty local forces under MD command may include coastal and border defense units, as well as infantry, armor, or artillery units. MD headquarters also oversee logistics depots and bases and armament units, such as repair and maintenance depots, in their province. MD headquarters command PLA reserve units in their province or autonomous region.

Each MD is divided into division leader-grade military subdistricts (军分区) and garrisons (警备区). MSDs are found in prefectures or cities and counties and take the name of their prefecture, city, or county. Since 2003 and 2004, MSDs in provincial capital cities, such as Shijiazhuang,

²⁶ Thanks to Ken Allen for pointing out the grade of Xinjiang MD. See *China Military Encyclopedia* Second Edition (中国军事百科全书第二版), Beijing: Encyclopedia of China Publishing House, 2007, p. 609. Photos of the commander and political commissar wearing military region deputy leader-grade ribbons are found, respectively, at “Peng Yong, Xiong Xuanguo Appointed to the Xinjiang Uygur Autonomous Region Party Committee Standing Committee (彭勇、熊选国任新疆维吾尔自治区党委常委),” September 7, 2011, accessed at <http://zt.rednet.cn/c/2011/09/07/2369346.htm> and “Xinjiang Carries Out Military-Civilian Building Beautiful Spiritual Home Activities (新疆开展军民共建美好精神家园活动),” March 30, 2012, accessed at www.xjkw.org.cn/article/List.asp?SelectID=2274&ClassID=66&SpecialID on 24 July 2012.

Taiyuan, Hohhot, Chengdu, and Lhasa and some other important cities, such as Guilin, Shantou, Sanya, and Lianyungang, have been designated as “garrisons.” The most recently formed garrison is the Sansha Garrison Command, part of Hainan MD, in the Paracel Islands in the South China Sea, established in July 2012.²⁷

In 2012, there are approximately 296 MSD and 39 garrison headquarters at the division leader grade. (Two “fort districts,” *yaosaiqu*, 要塞区, headquarters are also found at this level: Waichangshan in Shenyang MR and Neichangshan in Jinan MR.) Both MSD and these garrison headquarters are responsible for formulating mobilization plans, organizing conscription, supporting reserve and militia training, and supervising the activities of PAFDs in their areas. In border regions, MSD/garrison headquarters are in charge of PLA border defense troops and their operations.²⁸

In addition to the duties described above, garrison units guard military facilities and maintain order among the troops when they are outside of their military barracks on pass, leave, or official duties, similar to Military Police functions in other armies. According to the 1998 White Paper, garrison units in large and medium-sized cities are responsible to “check, inspect and handle cases of infringements of military discipline by military personnel as well as cases of violations of relevant rules by military vehicles.”²⁹ Soldiers performing garrison duty are often seen patrolling the streets on foot or in vehicles or setting up “military vehicle checkpoints.” These soldiers have authority only over members of the PLA and are not involved in the law enforcement activities of the local public security apparatus.

People’s Armed Forces Departments are found at county, city, district, township (town) or sub-district levels, and sometimes work unit level, such as in large factories. PAFD are primarily responsible for meeting local conscription quotas for the active force and the militia as determined by MSD and MD headquarters. They also assist in logistics support for units in their area and are involved with supporting demobilized soldiers and organizing reserve and militia training. Grassroots PAFDs provide peacetime command for militia units in their areas of responsibility.

County, city, and municipal district PAFD headquarters are led by active-duty PLA officers and are regiment leader-grade organizations. Below them, grassroots PAFD headquarters at township or sub-district levels are non-active-duty organizations (非现役机构).³⁰ Grassroots PAFD headquarters are manned by local civilian cadre who wear PLA uniforms but have distinctive insignia and rank epaulets different from PLA insignia and ranks. These local civilian PAFD cadre are called *zhuanzhi renminwuzhuang ganbu* (专职人民武装干部), which is often shortened to *zhuanwu ganbu* (专武干部); unfortunately, neither term has a consistent English

²⁷ “China To Deploy Military Garrison in South China Sea,” *China Daily*, 20 July 2012, at www.chinadaily.com.cn/xinhua/2012-07-20/content_6499218.html on 21 July 2012.

²⁸ *China’s National Defense in 2004* and *China’s National Defense in 2006*. The change in name from MSD to garrison headquarters can be seen by comparing the listings in the 2003 and earlier volumes of the *Directory of PRC Military Personalities* with later editions.

²⁹ *China’s National Defense*, July 1998.

³⁰ *China’s National Defense in 2006*.

translation. The number of civilian *zhuanwu ganbu* supporting the Chinese armed forces is not known and they are probably counted among the total number of militia personnel.

In addition to falling under the MR chain of command, all local headquarters from MD to PAFD levels are departments of the corresponding Communist Party committees and serve as local government organizations responsible for military work.³¹ In order to maintain party supervision of military affairs, the local civilian party secretary is dual-hatted as the first secretary of the party committee of the corresponding PLA headquarters. Local party committees are required to have at least two meetings a year on military affairs and local government and party leaders should also spend at least two days a year studying military knowledge.³² Based on individual personalities, the relationship between military officers and local party secretaries and other party officials probably varies from place to place.

Operational and Tactical Units

PLA Army operational and tactical units are organized as

- Group armies (集团军/corps leader-grade organizations), previously considered to be the equivalent of a corps-level organization in other militaries
- Divisions and logistics subdepartments (division leader-grade organizations)
- Brigades (division deputy leader-grade organizations)
- Regiments or groups (大队), also logistics depots (regiment leader-grade organizations)
- Battalions or squadrons (battalion leader-grade organizations)
- Companies (company leader-grade organizations)
- Platoons (platoon leader-grade organizations)
- Squads or weapons crews (since squads are led by noncommissioned officers, they have no grade level)

Organizations from group army down to regiment level are known as *budui* (部队), usually translated as “unit” and are assigned MUCDs. Organizations from battalion down to squad level are known as grassroots level units or *fendui* (分队), and usually would be best translated as “subunit” or “small unit.”

Group Armies

Group armies are composed of combinations of divisions, brigades, and regiments. The total number of personnel assigned to group armies probably varies from roughly 30,000 to about 50,000 depending on the number of divisions and brigades.

³¹ China’s National Defense in 2006.

³² Details of the two-way relationship between military leaders and local party/government officials are found in Zhiyue Bo, “The PLA and the Provinces,” in David Finkelstein and Kristen Gunness (eds) *Civil-Military Relations in Today’s China Swimming in a New Sea*, Armonk: M.E. Sharpe, 2007, pp. 96-130.

- SOF brigade or group (in some group armies)
- Logistics and armament support units

Over the past decade several group armies appear to have been assigned army aviation brigades and regiments. Currently, the ground force has about 13 army aviation brigades and regiments, with three regiments (two training and one operational) and a test group (试飞大队) under the control of the General Staff Department. The other army aviation units are assigned to MD or group army command. In 2009 the army aviation regiment in Xinjiang was reported as having been upgraded to a brigade. In late 2011 and early 2012, three more regiments (one each in the Nanjing, Chengdu, and Guangzhou MRs) were identified as brigades in the Chinese media.³³ Flight groups (飞行大队) are subordinate to both army aviation brigades and regiments.³⁴ The difference in the structure between a brigade and regiment has not been identified, but previously regiments were assessed to have about 30 helicopters of all types. Brigades are assumed to have more aircraft.

The expansion of regiments into brigades indicates the size of the helicopter force gradually is growing in numbers above the roughly 500 reported during the Wenchuan earthquake relief efforts in 2008.³⁵ *The Military Balance 2012* counts about 650 helicopters of all types in the Army.³⁶ In addition to transport helicopters, dedicated helicopter gunships (of two types, the Z-10 and the smaller Z-19, a modified Z-9³⁷) are beginning to enter the force. Nonetheless, for an Army with over a million personnel, the number of helicopters to support force of that size is extremely small and limits the amount of airmobile training the various units can conduct. As a result, helicopter units often support SOF troops in training.

Some group armies are assigned an SOF group or brigade. Over the years these units appear to have been pushed down from direct control by military region headquarters to come under the command of group army headquarters. However, not all group armies have SOF units. SOF regiments are estimated to have about one thousand personnel each, but the number of personnel

³³ For identification of the Nanjing brigade, see “Award Ceremony for Contemporary Revolutionary Soldiers Practicing Core Values Held in Beijing (践行当代革命军人核心价值观新闻人物颁奖典礼在京举行)” *Xinhua*, December 30, 2011, accessed at http://news.xinhuanet.com/mil/2011-12/30/c_122507358.htm 21 July 2012. The Chengdu brigade was identified on the “Military Report” on Chinese television on 5 January 2012, accessed at <http://military.cntv.cn/program/jsbd/20120105/124713.shtml> on 21 July 2012. The Guangzhou brigade was identified in “PLA army aviation force conducts first coastal defense patrol,” *PLA Daily*, 2012, 19 March 2012, accessed at http://eng.chinamil.com.cn/news-channels/china-military-news/2012-03/19/content_4814413.htm on 21 July 2012.

³⁴ For reference to a flight group subordinate to an army aviation brigade see, “China Army Aviation Old Fighter Aircraft in Service for 25 Year, Its Power Unabated (Photo)” (中国陆航老战机服役 25 年 威力不减当年(图)), *PLA Daily*, 20 June 2012, accessed at http://chn.chinamil.com.cn/wq/2012-06/20/content_4901203.htm on 18 November 2012. For reference to a flight group subordinate to an army aviation regiment see, “‘Hero Army Aviation Regiment’ Asserts Its Prowess in China-Australia Joint Disaster Relief Exercise” (“英雄陆航团”中澳两军救援减灾联合演练再显神威), *PLA Daily*, accessed at http://chn.chinamil.com.cn/lh/2011-12/10/content_4740897.htm on 18 November 2012.

³⁵ “Helicopter corps aims to build on quake experience,” *China Daily*, 5 July 2008, accessed at www.chinadaily.com.cn/china/2008-07/05/content_6821846.htm on 21 July 2012.

³⁶ *The Military Balance 2012*, p. 235.

³⁷ Richard Clements, “China’s Light Attack Helicopter Z-19: a silent (rather than radar evading) chopper,” February 1, 2012, accessed at <http://theaviationist.com/2012/02/01/china-z19/> on 21 July 2012.

communications, and logistics (medical, supply, maintenance, repair, etc) battalions or companies. In total, a division has 10 direct combat (maneuver) battalions, three per regiment and the recon battalion. An infantry division's manpower strength is about 10,000 personnel. Divisions are often characterized as having "a thousand" vehicles, which would include tanks, armored personnel carriers/infantry fighting vehicles, artillery, trucks, and smaller vehicles.

Armored divisions now command three armored regiments (each with a mechanized infantry battalion), an artillery regiment, and an AAA or air defense regiment, plus similar support units as found in an infantry division. Their total strength is about 8,000 personnel with about 300 tanks and armored personnel carriers.³⁸ In late 2011, the Chinese internet carried reports of armored divisions splitting to become an armored brigade and a mechanized infantry brigade. So far official media reports support the creation of two armored brigades out of the former 3rd and 4th Armored Divisions in the Shenyang MR, along with the formation of one mechanized infantry brigade from the 4th Armored Division.³⁹ The same process appears to have occurred in the Lanzhou MR with the former 12th Armored Division and in the Jinan MR with the 2nd and 11th Armored Divisions.⁴⁰ (The concurrent formation of new mechanized infantry brigades along with the new armored brigades has not been confirmed for all the divisions downsized so far, but seems likely.) As of late 2012, four armored divisions appear to be operational.

Brigades

Operationally brigades appear to have become equivalent to divisions now that many former divisions have been downsized to brigades. However, brigades hold a division deputy leader organizational grade. In the active-duty force, infantry, armor, artillery, AAA or air defense, and army aviation units all may be organized as brigades. An engineer brigade also is found in the

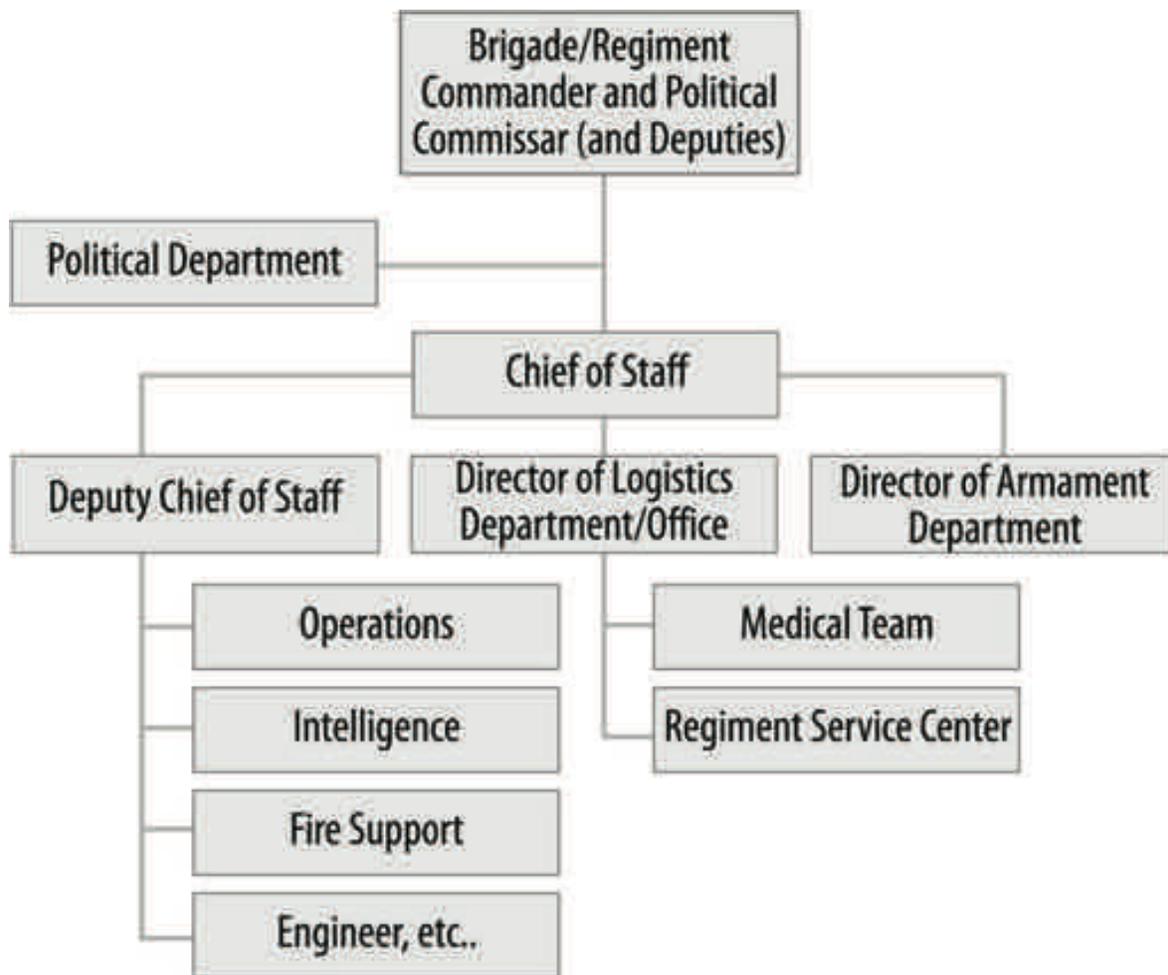
³⁸ For a description of the 6th Armored Division's organization, see "China to Honor Commitment to Olympic "Zero Defect" Attitude (特稿：中国兑现奥运采访"零拒绝"承诺新姿态)" *Xinhua*, 1 August 2008, accessed at http://news.xinhuanet.com/newscenter/2008-08/01/content_8898068.htm on 21 July 2012.

³⁹ The political commissar of the armored brigade is named in "Shenyang MR Armored Brigade Strengthens Headquarters Cadres Responsibility to Grassroots (沈阳军区某装甲旅强化机关干部帮带基层责任心)" *PLA Daily*, 17 December 2011, accessed at http://chn.chinamil.com.cn/zgjq/2011-12/17/content_4744151.htm; the same person previously was identified as political commissar of the unit in Meihokou in a local report "Meihokou Holds Ceremony for 'National Dual Support Model County' (梅河口市召开荣获"全国双拥模范县"称号庆祝会议)" 1 March 2012 accessed at <http://mhk.114chn.com/NewsHtml/220581/news120306000406.htm> on 21 July 2012. The name of a former armored division commander is now found as a brigade commander in "Shenyang MR Officers and Soldiers View Xuesu Ice Works (图览沈阳军区某部官兵的冰雕雪塑作品)," 19 December 2011 accessed at http://mil.fjsen.com/2011-12/19/content_7331954_2.htm on 21 July 2012. The new mechanized infantry brigade, commanded by Li Baodong, is referred to in "Seven-time 'Blue Army Commander' Talks About Leapfrog Development (七任"蓝军司令"共话跨越发展)," *PLA Daily*, 5 April 2012, at http://chn.chinamil.com.cn/zgjq/2012-04/05/content_4826882.htm on 21 July 2012.

⁴⁰ The transformation of the 12th Armored Division can be inferred from "Chengdu MR Armament Department Director Visits Jiuquan Iron and Steel Group (成都军区装备部部长到访酒钢)," November 3, 2011, accessed at www.chinasie.org.cn/news_info.aspx?lei=4&id=104207 and that of the 11th Armored Division from "Military-Civilian Building Contract Signing Ceremony Held In Company Square (军民共建签约揭牌仪式在公司广场隆重举行)," 21 July 2012, accessed at www.hbnkt.com/news_detail/newsId=dc1f9a4f-3375-4d93-b490-15f4230b9046.html on 30 July 2012. The 2nd Armored Division is not mentioned in the report "City Leaders Visit Units in Xuzhou Bringing Holiday Gifts" (市领导走访慰问驻徐部队官兵 送上节日的问候和慰问金), Huaihai TV, 2 August 2012 accessed at <http://news.huaihai.tv/xuzhounews/2012/0802/2012-08-02269710.html> on 18 November 2012. Instead among the units in the city, the report mentions an armored and mechanized infantry brigade.

Beijing MR and, most recently, an ECM brigade was identified in the Nanjing MR.⁴¹ Depending on the type, brigades probably range from 2,000 to 6,000 personnel, with numbers and types of vehicles assigned varying greatly (often characterized as in the hundreds). Infantry and armored brigades appear generally to command four or five combat battalions; an artillery regiment, which includes tube artillery, anti-tank weapons, and multiple rocket launchers, but is smaller than a divisional artillery regiment; an air defense battalion; and logistics and armament support units (likely of company size).⁴²

Figure 4: Brigade/Regiment Commander and Political Commissar



PLA regulations treat brigade and regiment headquarters at an equivalent administrative level with similar staff functional structures (though brigade headquarters have “departments” while in

⁴¹ The ECM brigade is mentioned in “Reflections on Soldiers with Shaved Heads (战士理光头带来的思考),” *PLA Daily* 12 April 2012 accessed at www.chinamil.com.cn/jfjbmap/content/2012-04/12/content_2879.htm on 21 July 2012. It is likely that the brigade was formed from a preexisting regiment already located in the MR.

⁴² See *The Military Balance 2011*, London: The International Institute for Strategic Studies, 2011, p. 199, for a description of the organization of a mechanized brigade.

regimental headquarters equivalent organizations are called “divisions”).⁴³ Reflecting the difference in organizational levels, brigade commanders usually are senior colonels and regimental commanders usually are colonels. Both share responsibility with a political commissar, usually of equal rank and grade. They are assisted by deputy commander(s), deputy political commissar(s), and a chief of staff. The director of the political department/division reports to both the commander and political commissar. The chief of staff is the senior officer of the headquarters department responsible for coordinating the work of several staff officers and their subordinates. Reporting directly to the chief of staff is at least one deputy chief of staff, the director of the logistics department/division, and the director of the armament or equipment department/division. All of these officers have specialized staff personnel to perform the functions of the various systems for which they are responsible. The deputy chief of staff is responsible for planning operations and has several assistants who perform other operations-related functions such as intelligence, fire support, and engineer planning. Answering to the director of logistics is the chief of the medical team and director of the service center, which works directly with subordinate companies to ensure proper supply and preparation of food for all units.

Regiments and Groups

Regiments usually are composed of numbered companies (identified by numbers one through nine or higher) of their basic type (infantry, armored, etc), which are assigned under the command of three battalion headquarters. In addition to maneuver battalions, combat regiments will have artillery or mortar and AAA units permanently assigned. Regimental headquarters may also command engineer, chemical defense, and logistics and armament support units, usually of company size. Depending on the type of unit, regiments may have from about 1,000 to over 2,500 personnel with over 100 armored vehicles in armored and mechanized units.

Under the Soviet system of organization, the combined arms regiment was the basic combat maneuver unit in the PLA Army. Regiment headquarters commanded and supported operations directly down to individual companies, with the battalion level headquarters having little actual planning and logistics responsibility (unlike the U.S. and many other foreign armies). Over the past decade, PLA doctrine has attempted to shift the focus of the basic combat maneuver unit down to the battalion level, emphasizing the temporary formation of “modular” (模块化) combined arms battalions (合成营), using a process similar to what is known in the West as “task organization” for specific missions and tasks.

The Army has roughly 17 ship groups to perform a variety of functions.⁴⁴ Four patrol craft groups (巡逻艇大队) and at least one separate battalion level unit (中队) are assigned to interior border defense units to conduct river patrol missions. These units appear to be assigned up to 10

⁴³ See Introduction Chapter for specific terminology.

⁴⁴ A Chinese blog listing Army and Air Force ship units as of February 2012 was found at <http://duchuanren.blog.163.com/blog/static/31648781201211015159938/> but is no longer available as of 21 July 2012. This list is generally consistent with findings based on other internet research. The Nyingchi unit is the subject of “Gaoqing: The Only Army Ship Unit in Tibet (高清：西藏唯一陆军船艇部队),” *Xinhua*, June 28, 2011 accessed at <http://news.anhuinews.com/system/2011/06/28/004184936.shtml>; the Hetian unit is the subject of “Going to the Highest Inland Sea Waterborne Squadron (走近驻地海拔最高的水上中队),” *PLA Daily* October 10, 2011 accessed at http://jz.chinamil.com.cn/video/content/2011-10/12/content_4694886.htm on 21 July 2012.

small, lightly armed speedboats capable of operating on rivers and inland lakes. (Additional smaller units may be assigned to some border defense regiments. For example, a patrol boat unit of undetermined size has been reported to be subordinate to a Guangxi border defense regiment.⁴⁵) Approximately 12 ship transport groups (船运大队) are assigned to joint logistics subdepartments and border defense units, including a unit in Nyingchi, Tibet, a battalion leader-grade unit in Hetian, Xinjiang, and the unit in Guangxi. Some units also have reconnaissance missions in addition to their transport tasks, which often are focused on supplying coastal defense units stationed on small islands. One unique ship group (船艇大队) in the Nanjing MR is stationed at the Dongshan Island amphibious training area to provide operational support to amphibious training.⁴⁶ This unit consistently trains in amphibious assault missions, unlike the other transport ship groups that are primarily utilized for logistics (and some reconnaissance) tasks, but occasionally participate in amphibious training. In general, however, because of their size and limited seaworthiness, the landing craft assigned to these units likely would be unsuitable for a long amphibious mission over open seas, as would be required for an invasion of Taiwan.

Battalions

Battalions are generally composed of three to five companies under the command of a battalion commander and political instructor. They are assisted by a small staff consisting of deputy battalion commander(s), deputy political instructors(s), and the director of a battalion medical clinic. The size of the battalion staff indicates that many command and staff functions traditionally have been conducted at regiment or brigade headquarters and not in the battalion headquarters. The total number of personnel in a battalion varies according to unit type, but probably ranges from about 200 to 700, with around 30 armored vehicles (or 18 to 24 artillery or air defense weapons) with additional trucks and jeeps in support.

Currently units are experimenting how to augment the battalion staff with personnel to perform the coordination and planning work required when additional units are assigned temporarily to form a combined arms battalion. In some cases junior officers from subordinate companies have been brought up to battalion level; in other cases a few NCOs have been assigned to battalion headquarters to perform staff functions. Eventually, once such experiments are over, it is likely that the table of organization and equipment (TO&E) for battalion headquarters will be adjusted by permanently assigning more personnel to the headquarters staff. But this process could take several more years before it is implemented throughout the entire Army.

Main Force Units

The bulk of the Army's combat power is found in the units assigned to the group armies and several important independent units assigned to Military Districts. The Shenyang, Beijing, Jinan, and Nanjing MRs each have three group armies under their command. Lanzhou, Guangzhou, and Chengdu MRs each command two group armies, with significant independent combat forces

⁴⁵ "Officer and Soldier Drivers of a Guangxi Border Defense Regiment Undergo Informationization Upgrades to Perform Patrol Mission (广西某边防团官兵驾驶经过信息化升级的巡逻艇执行巡逻任务)," *PLA Daily*, July 21, 2012, accessed at http://chn.chinamil.com.cn/jdtp/2012-07/21/content_4964264.htm on 21 July 2012.

⁴⁶ "Speaking with Nanjing MR Ship Group Commander Fang Rongsong (对话南京军区某船艇大队大队长方荣松)," *PLA Daily*, March 30, 2010, accessed at http://chn.chinamil.com.cn/2006jswy/2010-03/30/content_4168117.htm on 21 July 2012.

stationed in the remote regions of Lanzhou and Chengdu MRs (in Xinjiang and Tibet, respectively). See Appendix 1 for a map of main force unit locations.

The following pages provide an order-of-battle listing of main force units by military region with information current as of November 2012. Details are subject to change as additional open source reporting becomes available.⁴⁷

Shenyang MR (MUCD block 65XXX)

16th Group Army, 65301 Unit, Changchun, Jilin
46th Motorized Infantry Division (“Red Army Division”), 65316 Unit, Changchun, Jilin
69th Motorized Infantry Division, 65426 Unit, Harbin, Heilongjiang
48th Motorized Infantry Brigade, 65367 Unit, Tonghua, Jilin
68th Motorized Infantry Brigade, 65447 Unit, Qiqihar, Heilongjiang
67th Mechanized Infantry Brigade
4th Armored Brigade, 65352 Unit, Meihekou, Jilin
Artillery Brigade, 65334 Unit, Yanbian, Jilin
AAA Brigade, 65370 Unit, Changchun, Jilin
39th Mechanized Group Army, 65521 Unit, Liaoyang, Liaoning
115th Mechanized Infantry Division, 65535 Unit, Yingkou, Liaoning
116th Mechanized Infantry Division, 65547 Unit, Haicheng, Liaoning
190th Mechanized Infantry Brigade, 65559 Unit, Benxi, Liaoning
202th Mechanized Infantry Brigade
3rd Armored Brigade, 65571 Unit, Siping, Jilin
7th Artillery Brigade, 65583 Unit, Liaoyang, Liaoning
Air Defense Brigade, 65585 Unit, Dalian, Liaoning
9th Army Aviation Regiment, 65529 Unit, Liaoyang, Liaoning
Special Operations Group, 65037 Unit, Huludao, Liaoning
40th Group Army, 65631 Unit, Jinzhou, Liaoning
118th Motorized Infantry Brigade, 65651 Unit, Yixian, Liaoning
119th Motorized Infantry Brigade, 65655 Unit, Chifeng, Inner Mongolia
5th Armored Brigade, 65667 Unit, Fuxin, Liaoning
11th Artillery Brigade, 65659 Unit, Jinzhou, Liaoning
7th Air Defense Brigade, 65663 Unit, Jinzhou, Liaoning
Units Subordinate to MR or MD
191st Motorized Infantry Brigade, 65735 Unit, Dandong, Liaoning
EW Regiment, 65941 Unit
Technical Reconnaissance Bureau, 65016 Unit, Shenyang

Beijing MR (MUCD block 66XXX)

27th Group Army, 66267 Unit, Shijiazhuang, Hebei
80th Motorized Infantry Brigade, 66172 Unit, Luquan, Hebei
82nd Motorized Infantry Brigade, 66173 Unit, Datong, Shanxi
188th Mechanized Infantry Brigade, 66016 Unit, Xinzhou, Shanxi
235th Mechanized Infantry Brigade, 66220 Unit, Xingtai, Hebei

⁴⁷ The list of active-duty main force units is based primarily on the *Directory of PRC Military Personalities, October 2011*, updated by information from the Chinese media through November 2012.

7th Armored Brigade, 66075 Unit, Datong, Shanxi (Blue Force for the Zhurihe Combined Arms Training Base in Inner Mongolia)
 12th Artillery Brigade, 66077 Unit, Handan, Hebei
 AAA Brigade, 66010 Unit, Shijiazhuang, Hebei
 38th Mechanized Group Army, 66393 Unit, Baoding, Hebei
 112th Mechanized Infantry Division, 66336 Unit, Gaobeidian, Hebei
 113th Light Mechanized Infantry Division, 66069 Unit, Baoding, Hebei
 6th Armored Division, 66325 Unit, Nankou, Beijing
 6th Artillery Brigade, 66362 Unit, Pinggu, Beijing
 Mechanized Air Defense Brigade, 66440 Unit, Shijiazhuang, Hebei
 Engineer Regiment, Fangshan, Beijing
 8th Army Aviation Regiment, 66347 Unit, Baoding, Hebei
 Special Operations Brigade, 66413 (or 66011?) Unit, Daxing, Beijing
 65th Group Army, 66455 Unit, Zhangjiakou, Hebei
 193rd Division (“Red 1st Division”), 66195 Unit, Xuanhua, Hebei
 70th Motorized Infantry Brigade, 66028 Unit, Chengde, Hebei
 1st Armored Division, 66166 Unit, northern Tianjin municipality
 Artillery Brigade, 66081 Unit
 Beijing Garrison
 1st Garrison Division, 66400 Unit, Beijing (provides guards and street patrols for city, is not a TO&E infantry division)
 3rd Garrison Division, 66055 Unit, Shunyi
 Chemical Defense Regiment, 66114 Unit
 Tianjin Garrison
 196th Infantry Brigade, 66481 Unit, Yangcun, Tianjin municipality
 Units Subordinate to MR or MD
 AAA Brigade, 66109 Unit, Qinhuangdao, Hebei
 Engineer Brigade, Nankou, Beijing (UN PKO force)
 Engineer Water Supply Regiment
 Chemical Defense Regiment, 66321 Unit
 EW Regiment, 66018 Unit
 Technical Reconnaissance Bureau, 66407 Unit, Beijing
 4th Army Aviation Regiment, Tongzhou (subordinate to GSD)
 Army Aviation Training Unit, Tongzhou (subordinate to GSD)
 Army Aviation Training Unit, Linfen, Shanxi (subordinate to GSD)
 Central Guard Regiment, 61889 Unit, Beijing (subordinate to GSD)

Lanzhou MR (MUCD block 68XXX – 69XXX)

21st Group Army, 68210 Unit, Baoji, Shaanxi
 61st Division (“Red Army Division”), 68202 Unit, Tianshui, Gansu
 62nd Mechanized Infantry Brigade
 12th Armored Brigade, 68203 Unit, Jiuquan, Gansu
 Artillery Brigade, 68205 Unit, Yinchuan, Ningxia
 Air Defense Brigade, 68206 Unit, Linxia, Gansu
 Special Operations Brigade, 68216 Unit, Qingtongxia, Ningxia
 47th Group Army, 68310 Unit, Lintong, Shaanxi

55th Motorized Infantry Brigade, 68307 Unit, Zhangye, Gansu
56th Motorized Infantry Brigade, 68303 Unit, Wuwei, Gansu
139th Mechanized Infantry Brigade, 68302 Unit, Weinan, Shaanxi
9th Armored Brigade, 68304 Unit, Chengcheng, Shaanxi
1st Artillery Brigade, 68305 Unit, Yongdeng, Gansu
Air Defense Brigade, 68306 Unit, Lintong, Shaanxi
Units Subordinate to MR or MD
4th Division (“Red Army Division”), 69220 Unit, Kuqa, Xinjiang MD
6th Mechanized Infantry Division, 69210 Unit, Hetian, Xinjiang MD
8th Motorized Infantry Division, 69230 Unit, Tacheng, Xinjiang MD
11th Motorized Infantry Division, 69240 Unit, Urumqi, Xinjiang MD
Artillery Brigade, 69250 Unit, Xinjiang MD
Air Defense Brigade, 69260 Unit, Bayan Gol, Xinjiang MD
Special Operations Regiment, 69290 Unit, Xinjiang MD
3rd Army Aviation Brigade, 69008 Unit, Hetian, Xinjiang MD
Technical Reconnaissance Bureau, 68002 Unit, Lanzhou
Technical Reconnaissance Bureau, 69010 Unit, Urumqi
Chemical Defense Regiment, 68231 Unit

Jinan MR (MUCD block 71XXX -72XXX)

20th Group Army, 71320 Unit, Kaifeng, Henan
58th Light Mechanized Infantry Brigade, 71622 Unit, Xuchang, Henan
60th Motorized Infantry Brigade, 71897 Unit, Minggang, Xinyang, Henan
Armored Brigade, 71669 Unit, Nanyang, Henan
Artillery Brigade, 71262 Unit, Queshan, Henan
Air Defense Brigade, 71315 Unit, Shangqiu, Henan
Engineer Regiment, Xinyang, Henan
26th Group Army, 71146 Unit, Weifang, Shandong
77th Motorized Infantry Brigade, 71613 Unit, Haiyang, Shandong
138th Motorized Infantry Brigade, 71217 Unit, Laiyang, Shandong
199th Motorized Infantry Brigade, 71345 Unit, Zibo, Shandong
8th Armored Division, 71375 Unit, Weifang, Shandong
8th Artillery Brigade, 71602 Unit, Weifang, Shandong
Air Defense Brigade, 71939 Unit, Jinan, Shandong
7th Army Aviation Regiment, 71901 Unit, Liaocheng, Shandong
Special Operations Group, 71770 Unit, Laiwu, Shandong
54th Group Army, 71521 Unit, Xinxiang, Henan
127th Light Mechanized Infantry Division, (*Tie Jun*, includes *Ye Ting* Independent Regiment), 71282 Unit, Luoyang, Henan
162nd Motorized Infantry Division (“Ferocious Tigers”), 71352 Unit, Anyang, Henan
11th Armored Brigade, 71811 Unit, Xinyang, Henan
Artillery Brigade, 71426 Unit, Jiaozuo, Henan
1st Air Defense Brigade, 71834 Unit, Xingyang, Zhengzhou, Henan
1st Army Aviation Regiment, 71687 Unit, Xinxiang, Henan
Units Subordinate to MR or MD
EW Regiment, 71799 Unit, Zibo, Shandong

3rd Technical Reconnaissance Bureau, 72959 Unit, Jinan, Shandong
Chemical Defense Regiment, 71988 Unit, Jinan, Shandong

Nanjing MR (MUCD block 73XXX)

1st Group Army, 73011 Unit, Huzhou, Zhejiang
1st Amphibious Mechanized Infantry Division, 73021 Unit, Hangzhou, Zhejiang
3rd Motorized Infantry Brigade, 73051 Unit, Jinhua, Zhejiang
10th Armored Division, 73041 Unit, Suzhou, Jiangsu
9th Artillery Division, 73031 Unit, Wuxi, Jiangsu
Air Defense Brigade, 73056 Unit, Zhenjiang, Jiangsu
5th Army Aviation Brigade, 73602 Unit, Nanjing, Jiangsu
12th Group Army, 73061 Unit, Xuzhou, Jiangsu
34th Motorized Infantry Brigade, 73091 Unit, Chuzhou (Sanjie), Anhui
36th Motorized Infantry Brigade, 73071 Unit, Xinyi, Jiangsu
179th Motorized Infantry Brigade (“Linfen Brigade”), 73096 Unit, Nanjing, Jiangsu
Mechanized Infantry Brigade, Xuzhou, Jiangsu
Armored Brigade, Xuzhou, Jiangsu
Artillery Brigade, 73101 Unit, Xuzhou, Jiangsu
Air Defense Brigade, 73106 Unit, Huai’an, Jiangsu
31st Group Army, 73111 Unit, Xiamen, Fujian
86th Motorized Infantry Division, 73121 Unit, Fuzhou, Fujian
91st Motorized Infantry Division, 73131 Unit, Zhangzhou, Fujian
92nd Motorized Infantry Brigade, 73141 Unit, Nan’an, Quanzhou, Fujian
Amphibious Armored Brigade, 73156 Unit, Zhangzhou, Fujian
3rd Artillery Brigade, 73146 Unit, Quanzhou, Fujian
13th Air Defense Brigade, 73151 Unit, Xiamen, Fujian
10th Army Aviation Regiment, 73159 Unit, Hui’an, Fujian
Special Operations Brigade, 73653 Unit, Quanzhou, Fujian
Shanghai Garrison
1st Coastal Defense Brigade, 73171 Unit
2nd Coastal Defense Brigade, 73176 Unit
Other Units Subordinate to MR or MD
ECM Brigade
31st Pontoon Bridge Brigade, 73211 Unit, Jiangsu MD
Chemical Defense Regiment, 73017 Unit, Nanjing, Jiangsu
Ship Group (Amphibious Training), Dongshan Island
Technical Reconnaissance Bureau, 73610 Unit, Nanjing
Technical Reconnaissance Bureau, 73630 Unit, Fuzhou

Guangzhou MR (MUCD block 75XXX – 76XXX)

41st Group Army, 75100 Unit, Liuzhou, Guangxi
121st Infantry Division, 75120 Unit, Guilin, Guangxi
123rd Mechanized Infantry Division, 75130 Unit, Guigang, Guangxi
Armored Brigade, 75160 Unit, Guilin, Guangxi
Artillery Brigade, 75140 Unit, Liuzhou, Guangxi
19th Air Defense Brigade, 75150 Unit, Hengyang, Hunan

42nd Group Army, 75200 Unit, Huizhou, Guangdong
124th Amphibious Mechanized Infantry Division, 75210 Unit, Boluo, Guangdong
163rd Division, 75220 Unit, Chaozhou, Guangdong
9th Armored Brigade, 75250 Unit, Guangzhou, Guangdong
1st Artillery Division, 75230 Unit, Qujiang, Guangdong
Air Defense Brigade, 75240 Unit, Chaozhou, Guangdong
Special Operations Brigade, 75738 Unit, Guangzhou, Guangdong
6th Army Aviation Brigade, 75752 Unit, Foshan, Guangdong
Hong Kong Garrison, 75600 Unit
Infantry Brigade, 75620 Unit
Macao Garrison, 75640 Unit
Other Units Subordinate to MR or MD
132nd Infantry Brigade, 75560 Unit, Wuzhishan, Hainan
32nd Pontoon Bridge Brigade, 75310 Unit, Hubei MD
EW Regiment, 75737 Unit
Technical Reconnaissance Bureau, 75770 Unit, Guangzhou, Guangdong

Chengdu MR (MUCD block 77XXX - 78XXX)

13th Group Army, 77100 Unit, Chongqing
37th “Red Army” Division, 77126 Unit, Chongqing
149th Mechanized Infantry Division, 77156 Unit, Leshan, Sichuan
Armored Brigade, 77113 Unit, Pengzhou, Sichuan
Artillery Brigade, 77115 Unit, Chongzhou, Sichuan
AAA Brigade, 77123 Unit, Mianyang, Sichuan
2nd Army Aviation Brigade, 77116 Unit, Chengdu, Sichuan
Special Operations Brigade, 77118 Unit, Chengdu, Sichuan
14th Group Army, 77200 Unit, Kunming, Yunnan
31st Division, 77263 Unit, Dali, Yunnan
40th Division, Kaiyuan, 77283 Unit, Yunnan
Armored Brigade, 77223 Unit, Kunming, Yunnan
Artillery Brigade, 77225 Unit, Kunming, Yunnan
Air Defense Brigade, 77226 Unit, Kunming, Yunnan
29th Chemical Defense Regiment, 77221 Unit, Kunming, Yunnan
Chongqing Garrison
Other Units Subordinate to MR or MD
52nd Mountain Infantry Brigade, 77675 Unit, Nyingchi, Xizang
53rd Mountain Infantry Brigade, 77680 Unit, Nyingchi, Xizang
54th Mechanized Infantry Brigade, Lhasa
Special Operations Group, 77606 Unit, Lhasa
Army Aviation Regiment, Tibet MD
Army Aviation Training Unit, Yibin, Sichuan
1st Technical Reconnaissance Bureau, 78006 Unit, Chengdu, Sichuan
2nd Technical Reconnaissance Bureau, 78020 Unit, Kunming, Yunnan
EW Regiment, 77108 Unit
Chemical Defense Technical Group, 78668 Unit

Border and Coastal Defense Units

Army border defense and coastal defense units are commanded by Military Subdistrict headquarters. Border defense units are mostly organized into light infantry regiments that man fixed observation posts and patrol the borders on foot and by various other methods (horses, snowmobiles, etc.) depending on the terrain in their area of responsibility. Infantry units are augmented by a few patrol craft units, which operate on rivers and lakes. Two horse cavalry battalions and several cavalry companies (probably subordinate to border defense regiments) can be found in the force.⁴⁸ Coastal defense units may be infantry or artillery and are often stationed on small islands. Coastal defense units are supported by ship transport groups that also may perform reconnaissance missions.

Border and coastal defense regiments probably are manned by about 2,000 personnel each and have limited mobility for offensive maneuvering during combat situations. These are purely defensive and early warning units.⁴⁹ Army coastal defense units may be equipped with artillery, but are not known to employ anti-ship cruise missiles (unlike PLAN coastal defense units).

Shenyang MR

Heilongjiang

- 1st Border Defense Regiment, 65911 Unit, Dongning
- 2nd Border Defense Regiment, 65915 Unit, Mishan
- 3rd Border Defense Regiment, 65919 Unit, Raohe
- 4th Border Defense Regiment, 65923 Unit, Fuyuan
- 5th Border Defense Regiment, 65927 Unit, Luobei
- 6th Border Defense Regiment, 65931 Unit, Jiayin
- 7th Border Defense Regiment, 65935 Unit, Heihe
- 8th Border Defense Regiment, 65939 Unit, Tahe
- 9th Border Defense Regiment, 65943 Unit, Mohe
- 1st Patrol Craft Group, 65947 Unit, Jiamusi
- 2nd Patrol Craft Group, 65951 Unit, Heihe

Jilin

- 1st Border Defense Regiment, 65827 Unit, Linjiang
- 2nd(?) Border Defense Regiment, 65831 Unit, Tumen
- 3rd Border Defense Regiment, 65811 Unit, Hunchun
- Patrol Craft Group, 65835 Unit, Ji'an

Liaoning

- Waichangshan Fort, 65711 Unit
- Unit Border Defense Regiment, 65755 Unit, Dandong
- Coastal Defense Regiment, 65715 Unit, Haiyangdao
- Coastal Defense Regiment, 65719 Unit, Zhangzidao
- Coastal Defense Regiment, 65723 Unit, Shichengdao

⁴⁸ "Cavalry style remains in border area," *PLA Daily*, 18 April 2012, accessed at http://eng.chinamil.com.cn/news-channels/china-military-news/2012-04/18/content_4838835.htm on 21 July 2012.

⁴⁹ The order-of-battle list for border and coastal defense units is derived primarily from a 2009 Chinese list "Chinese PLA Border and Coastal Defense Units (中国人民解放军边防海防部队)," accessed at <http://bbs.junhunw.cn/forum.php?mod=viewthread&tid=626> on 21 July 2012. The information in this list was crossed-checked with other sources.

4th Coastal Defense Regiment, 65727 Unit, Guangludao
Coastal Defense Regiment, 65743 Unit, Zhuanghe
Ship Transport Group, 65731 Unit, Dalian

Beijing MR

Inner Mongolia

1st Border Defense Regiment, Wulatezhongzhen
2nd Border Defense Regiment, Erlianhaote
3rd Border Defense Regiment, 66156 Unit, Dongwuzhumuqinzheng
4th Border Defense Regiment, Ejinazhen
5th Border Defense Regiment, Baotou Guyang
6th Border Defense Regiment, 66355 Unit, Haila'er
7th Border Defense Regiment, 66127 Unit, Manzhouli
8th Border Defense Regiment, 66379 Unit, Xinbaerhuzuozen
9th Border Defense Regiment, 66056 Unit, A'ershan
Patrol Craft Group, 66423 Unit, Ergun

Lanzhou MR

Xinjiang

1st Border Defense Regiment, 69330 Unit, Balikun
2nd Border Defense Regiment, 69332 Unit, Qitai
3rd Border Defense Regiment, 69344 Unit, Habahe
4th Border Defense Regiment, 69340 Unit, Fuyun
5th Border Defense Regiment, 69337 Unit, Emin
6th Border Defense Regiment, 69338 Unit, Tuoli
7th Border Defense Regiment, 69339 Unit, Bole
8th Border Defense Regiment, 69348 Unit, Huochenghuiyuan
9th Border Defense Regiment, 69349 Unit, Zhaosu
10th Border Defense Regiment, 69312 Unit, Wushen
11th Border Defense Regiment, 69313 Unit, Wuqia
12th Border Defense Regiment, 69315 Unit, Tashenku'ergan
13th Border Defense Regiment, 69316 Unit, Poskam, including a "Lake (Patrol Craft) *Zhongdui*" (battalion grade unit), Hetian
Border Defense Battalion, Hami
Border Defense Battalion
Kashen Border Defense Battalion
Plus eight Border Defense Companies, one independent Border Defense Battalion

Jinan MR

Shandong

Neichangshan Fort, 71187 Unit, with Reconnaissance and Ship Transport Group
1st Coastal Defense Regiment, 71281 Unit, Chenghuangdao
2nd Coastal Defense Regiment, 71496 Unit, Changshandao
3rd Coastal Defense Regiment, 71867 Unit, Penglai
4th Coastal Defense Regiment, 71761 Unit, Yantai
5th Coastal Defense Regiment, 71670 Unit, Rushan

Coastal Defense Regiment, 71251 Unit, Weihai
8th Coastal Defense Regiment, 71271 Unit, Laoshan
9th Coastal Defense Regiment, Rizhao
Reconnaissance and Ship Transport Group, 71210 Unit, Yantai
Reconnaissance and Ship Transport Group, 71115 Unit, Qingdao

Nanjing MR

Jiangsu

2nd Coastal Defense Regiment, 73201 Unit, Lianyungang
Artillery Regiment, 73202 Unit, Guanyun
3rd Coastal Defense Regiment, 73206 Unit, Nantonghaimen
Coastal Defense Battalion, Sheyang

Zhejiang

13th Coastal Defense Regiment, 73231 Unit, Shengsi
15th Coastal Defense Regiment, 73232 Unit, Daishan
17th Coastal Defense Regiment, 73233 Unit, Putuo
18th Coastal Defense Regiment, 73235 Unit, Dinghai
Artillery Regiment, 73236 Unit, Dinghai
Shipu Coastal Defense Battalion, Xiangshan
Dachen Coastal Defense Battalion, Taizhou
Wenzhou Coastal Defense Battalion
Ship Transport Group, 73237 Unit, Zhoushan

Fujian

11th Coastal Defense Brigade, 73331 Unit, Lianjiang
12th Coastal Defense Division, 73301 Unit, Changle, with Ship Transport Group, 73306 Unit, Putian
13th Coastal Defense Division, 73311 Unit, Jinjiang
52nd Coastal Defense Regiment, 73322 Unit
54th Coastal Defense Regiment, 73323 Unit, Dadeng
Artillery Regiment, 73325 Unit
56th Coastal Defense Regiment, Zhangzhou Dongshan
Ship Transport Group, 73326 Unit, Haotou in Xiamen

Guangzhou MR

Guangdong

1st Coastal Defense Regiment, 75403 Unit, Nan'ao
2nd Coastal Defense Regiment, 75406 Unit, Guishan
4th Coastal Defense Regiment, 75407 Unit, Xuwen
Ship Transport Group, 75411 Unit, Zhuhai

Hainan

10th Coastal Defense Regiment, 75571 Unit, Wenchang
11th Coastal Defense Regiment, 75574 Unit, Danzhou
Vehicle and Ship Transport Group, 75564 Unit, Qiongsan

Guangxi

1st Border Defense Regiment, 75475 Unit, Fancheng Huashishen
3rd Border Defense Regiment, 75482 Unit, Pingxiang

4th Border Defense Regiment, 75485 Unit, Longzhou
5th Border Defense Regiment, 75486 Unit, Jingxi
Artillery Regiment, 75483 Unit
12th Coastal Defense Regiment, 75494 Unit, Weizhoudao

Chengdu MR

Yunnan

1st Border Defense Regiment, 77318 Unit, Funing
2nd Border Defense Regiment, 77322 Unit, Malipo
3rd Border Defense Regiment, 77323 Unit, Hekou
4th Border Defense Regiment, 77325 Unit, Pingbian
5th Border Defense Regiment, 77326 Unit, Jinping
7th Border Defense Regiment, 77328 Unit, Jiangcheng
8th Border Defense Regiment, 77330 Unit, Mengla
9th Border Defense Regiment, 77335 Unit, Diqing
10th Border Defense Regiment, 77327 Unit, Lancang
11th Border Defense Regiment, 77329 Unit, Cangyuan
12th Border Defense Regiment, 77332 Unit, Dehong

Xizang

1st Border Defense Regiment, 77629 Unit, Shannanlongzi
2nd Border Defense Regiment, 77635 Unit, Cuonei
3rd Border Defense Regiment, 77639 Unit, Dingri
4th Border Defense Regiment, 77643 Unit, Changdu
5th Border Defense Regiment, 77646 Unit, Saga
6th Border Defense Regiment, 77649 Unit, Yadong
Jiangzi Battalion
Gangba 2nd Battalion
Luozha 5th Battalion
Milin Battalion
Motuo Battalion
Nyingchi Ship Transport Unit

Logistics Subdepartments

Joint logistics subdepartments (JLSDs) consist of fixed supply and repair depots/bases as well as the support units assigned to these bases and depots. JLSDs are division leader-grade headquarters that manage support units such as material and POL depots, central hospitals, transportation units, maintenance and repair units. JLSDs also run large farms for sideline production.

Approximately 27 JLSDs are distributed among the seven military regions and are under the supervision of the MR headquarters JLD.⁵⁰ Each has a unique structure usually consisting of roughly 10 to 15 subordinate regiment leader-grade units. While some JLSDs command units in

⁵⁰ The list of joint logistics subdepartments is based on a 2009 blog entry found at http://blog.sina.com.cn/s/blog_4de8461c0100cx0b.html accessed on 25 January 2011, but the content has since been changed. The original list was modified and confirmed through internet searches on individual MUCDs.

only one province, others have subordinate units stationed in multiple provincial-level jurisdictions.

At least two ship transport groups (estimated to command about 10 small amphibious craft each) are assigned to Nanjing MR JLSDs (in Shanghai and Nanjing). These vessels are used for river and coastal transport (including POL supplies).

Mobile POL pipeline units (管线部队) have been identified in Lanzhou, Nanjing, Guangzhou, and Chengdu MRs. Nanjing MR's 73833 pipeline unit was established in 2001 and has been named the "All-Army" pipeline unit.⁵¹

Shenyang MR

- 1st Joint Logistics Subdepartment, 65117 Unit, Jilin
- 2nd Joint Logistics Subdepartment, 65133 Unit, Shenyang, Liaoning
- 4th Joint Logistics Subdepartment, 65152 Unit, Jinzhou, Liaoning
- 40th Joint Logistics Subdepartment, 65165 Unit, Harbin, Heilongjiang

Beijing MR

- 5th Joint Logistics Subdepartment, 66401 Unit, Taiyuan, Shanxi
- 6th Joint Logistics Subdepartment, 66040 Unit, Fengtai, Beijing
- 7th Joint Logistics Subdepartment, 66296 Unit, Shijiazhuang, Hebei
- 8th Joint Logistics Subdepartment, 66356 Unit, Tianjin

Lanzhou MR

- 25th Joint Logistics Subdepartment, 68060 Unit, Xining, Qinghai
- 27th Joint Logistics Subdepartment, 68070 Unit, Lanzhou, Gansu
- 28th Joint Logistics Subdepartment, 68090 Unit, Xi'an, Shaanxi
- 29th Joint Logistics Subdepartment, 69050 Unit, Shawan, Xinjiang
- 30th Joint Logistics Subdepartment, 69052 Unit, Urumqi, Xinjiang
- 31st Joint Logistics Subdepartment, 69064 Unit, Korla, Xinjiang

Jinan MR

- 9th Joint Logistics Subdepartment, 72433 Unit, Jinan, Shandong
- 33rd Joint Logistics Subdepartment, 72495 Unit, Zhengzhou, Henan

Nanjing MR

- 13th Joint Logistics Subdepartment, 73801 Unit, Wuxi, Jiangsu, with Ship Transport Group, 73807 Unit
- 15th Joint Logistics Subdepartment, 73821 Unit, Huai'an, Jiangsu
- 16th Joint Logistics Subdepartment, 73841 Unit, Nanjing, Jiangsu, with Ship Transport Group, 73857 Unit
- 17th Joint Logistics Subdepartment, 73861 Unit, Yingtan, Jiangxi
- 18th Joint Logistics Subdepartment, 73881 Unit, Fuzhou, Fujian

⁵¹ See "Oil Dragons' Dance 1,000 Li (油龙舞千里)," *PLA Pictorial*, June 2009, accessed at www.plapic.com.cn/txt/200906b/20090608-3B.htm on 21 July 2012.

Guangzhou MR

- 19th Joint Logistics Subdepartment, 76110 Unit, Changsha, Hunan
- 20th Joint Logistics Subdepartment, 76140 Unit, Guilin, Guangxi
- 21st Joint Logistics Subdepartment, 76160 Unit, Guangzhou, Guangdong

Chengdu MR

- 22nd Joint Logistics Subdepartment, 78300 Unit, Kunming, Yunnan
- 37th Joint Logistics Subdepartment, 78379 Unit, Chongqing
- 38th Joint Logistics Subdepartment, 78438 Unit, Chengdu, Sichuan

Reserve Units

The reserve force (consisting of PLA reserve units and the militia) has been reorganized and updated along with the modernization of the active-duty force since 1997. PLA reserve units were reported to number about 510,000 personnel in 2009, but this figure is probably increasing as the PLAN, PLAAF, and PLASAF add reserve units and personnel.⁵²

The bulk of the PLA reserve unit strength still supports the Army. Reserve units are organized in divisions, brigades, and regiments based on provincial boundaries and are commanded by their respective MD headquarters. In total, the Army reserve force consists of approximately 38 divisions, 25 brigades, and several regiments. Fully one-third of Army reserve units (24 out of 63 divisions and brigades) are dedicated to local air defense and are equipped mostly with AAA guns. A reserve logistics support brigade (预备役后勤保障旅) has been created in each military region since 1997.⁵³

Shenyang MR

- Liaoning Army Reserve 192nd Infantry Division, Shenyang
- Liaoning Army Reserve 1st AAA Division, Shenyang
- Liaoning Army Reserve 2nd AAA Division, Dalian
- Liaoning Jinzhou Reserve Logistics Support Brigade
- Liaoning Army Reserve Communications Regiment, Anshan
- Jilin Army Reserve 47th Infantry Division, Jilin city
- Jilin Reserve Artillery Division, Changchun
- Jilin Reserve Anti-Tank Artillery Brigade, Baicheng
- Jilin Army Reserve AAA Brigade, Changchun
- Jilin Army Reserve Communications Regiment, Tonghua
- Reserve Water Supply Engineer Regiment
- Heilongjiang Army Reserve Infantry Division
- Heilongjiang Army Reserve AAA Division, Daqing
- Heilongjiang Reserve Artillery Brigade, Harbin
- Reserve AAA Brigade, Jiamusi, Heilongjiang
- Heilongjiang Army Reserve Chemical Defense Regiment, Harbin

⁵² “National Defense Reserve Strength” (国防后备力量), *Xinhua*, 22 September 2009, accessed at http://news.xinhuanet.com/mil/2009-09/22/content_12098695.htm on 21 July 2012.

⁵³ The list reserve units is based primarily on the *Directory of PRC Military Personalities, October 2011*, updated by information from the Chinese media.

Beijing MR

Beijing Garrison Reserve AAA Division
Beijing Garrison Reserve Chemical Defense Regiment
Tianjin Army 1st Reserve AAA Division
Hebei Army Reserve Artillery 72nd Division, Tangshan
Hebei Army Reserve Infantry Division, Shijiazhuang
Hebei Army Reserve Artillery Brigade, Handan
Hebei Army Reserve Artillery Brigade, Qinhuangdao
Hebei Army Reserve AAA Brigade, Zhangjiakou
Hebei Langfang Army Reserve Logistics Support Brigade
Shanxi Army Reserve Infantry 83rd Division, Xinzhou
Shanxi Army Reserve AAA Brigade, Taiyuan
Neimenggu Army Reserve 30th Infantry Division, Hohhot

Lanzhou MR

Shaanxi Army Reserve 141st Infantry Division
Shaanxi Army Reserve AAA Division, Xi'an
Shaanxi Baoji Army Reserve Logistics Support Brigade
Gansu Army Reserve Infantry Tianshui Brigade
Gansu Army Reserve AAA Division, Lanzhou
Xinjiang Army Reserve Infantry Division
Qinghai Army Reserve Infantry Brigade

Jinan MR

Shandong Army Reserve 76th Infantry Division, Yantai
Shandong Reserve Artillery Division, Jining
Shandong Reserve AAA Division, Qingdao
Shandong Reserve Army Logistics Support Brigade, Dezhou
Henan Army Reserve 136th Infantry Division, Kaifeng
Henan Army Reserve AAA Division, Zhengzhou
Jinan Army Reserve Pontoon Bridge Regiment, Mangshan, Luoyang, Henan

Nanjing MR

Shanghai Army Reserve AAA Division
Jiangsu Reserve AAA Division, Nanjing
Jiangsu Army Reserve 2nd AAA Division, Yangzhou
Anhui Army Reserve Infantry Division, Hefei
Anhui Army Reserve AAA Brigade, Wuhu
Fujian Army Reserve AAA Division, Fuzhou
Fujian Zhangzhou Reserve Logistics Support Brigade, with Ship Transport Group
Jiangxi Army Reserve Infantry Division, Nanchang
Jiangxi Army Reserve Artillery Brigade, Shangrao
Zhejiang Army Reserve Infantry Division
Reserve Coastal Defense Regiment, Ningde

Guangzhou MR

Hunan Army Reserve Infantry Division, Changsha
Hunan Hengyang Army Reserve Logistics Support Brigade
Guangdong Reserve AAA Division
Guangdong Zhanjiang Reserve AAA Brigade
Guangxi Army Reserve Infantry Division, Nanning
Hainan Army Reserve Division
Hubei Army Reserve AAA Division, Wuhan
Hubei Xiangyang Army Reserve Artillery Brigade
Hubei Yichang Reserve AAA Brigade
Shenzhen Reserve Chemical Defense Regiment

Chengdu MR

Sichuan Leshan Reserve Infantry Brigade
Sichuan Army Reserve AAA Division
Sichuan Dazhou Army Reserve Artillery Brigade
Chongqing Reserve AAA Division
Chongqing Army Reserve Logistics Support Brigade
Guizhou Army Reserve Infantry Division
Yunnan Army Reserve Infantry Division
Tibet Army Reserve Mixed Brigade

Professional Military Education Organizations

The Army's slice of the PLA's professional military education system consists of dozens of basic-level universities, institutes or academies, and schools for officer and NCO education as well as several intermediate level command academies for mid-career officer education. These institutions can be categorized into the four officer category systems (military/operations, political, logistics, and armament) and are found throughout the country. Like the rest of the ground forces, they have undergone tremendous organization and functional change over the past 15 years to keep up with the trends requiring fewer junior officers in fewer units, more NCOs in all units, greater emphasis on joint and combined arms operations, and an overall more technologically-advanced force. Several structural changes occurred in mid-to-late 2011; more are likely to follow in the coming decade.

Despite the new operational doctrine issued in the late 1990s, the academies appear to have been slow to adapt to educating officers and NCOs to prepare for the new demands that will be placed upon them once they arrive in their units. For example, in February 2012, *PLA Daily* reported "80 commanders at regiment and battalion levels selected from the army, navy, air force and the Second Artillery Force" of the Guangzhou MR will take part in the first "cultivation and training class" for joint operation staff officers at the National University of Defense Technology. Eventually this year-long class will be held twice annually and rotated among the military regions.⁵⁴ This "first" apparently is a "first" for the National University of Defense Technology, but coming somewhat late after the system for providing education in joint operations was identified in the 2004 White Paper:

⁵⁴ "First training class for joint-operation staff officers launched at NUDT," *PLA Daily*, February 16, 2012 at http://eng.chinamil.com.cn/news-channels/china-military-news/2012-02/16/content_4792579.htm on 21 July 2012.

The military educational institutions have intensified their joint operations training. The elementary command colleges offer basic courses in joint operations. The intermediate command colleges offer courses on service campaigns and combined operations. The advanced command university offers courses on strategic studies and joint operations.⁵⁵

Apparently, the system described in 2004 has not been working as effectively as required, prompting the changes in organization described below.

Likewise, the education system is only beginning to train officers at the battalion grade level and below to command and control combined arms operations. The Mechanized Infantry Academy at Shijiazhuang appears to be at the forefront of this effort to integrate officers of different specialties into cohesive organizations.⁵⁶ This sort of pre-assignment education will become increasingly important if the PLA intends to expand the number of combat brigades in the force and eliminate most regimental and division level headquarters.

Changes in Army educational institutions have been made to reflect the current needs and functional requirements of the force. Two basic officer academies have been transformed into NCO schools: the Vehicle Management Academy has become the Bengbu Vehicle NCO School and the Bethune Military Medical College has been changed to the Bethune Military Medical NCO School. These are added to the three ground force NCO Schools that previously existed: Beijing Mechanics NCO School, Wuhan Ordnance NCO School, and Xuanhua Communications NCO School (the other services each also have one NCO school).

Prior to 2011, ten Army command academies were found in the force. Now only three Army command academies (or colleges) appear to remain after the recent round of reorganization:

- Army Command Academy, Nanchang
- Army Command Academy, Nanjing
- Army Command Academy, Shijiazhuang

Seven former command academies have had their names changed and are no longer considered “command” institutes. These changes may reflect a lowering of the organizational grade for these academies.

- The Artillery Command Academy in Xuanhua has been disbanded and the educational element merged with an Artillery Academy in Nanjing; the remainder of the organization has become a GSD Artillery Training base, which is not part of the professional military education system.
- The Communications Command Academy in Wuhan is now called the National Defense Information Academy.

⁵⁵ China’s National Defense in 2004.

⁵⁶ “Student Combined Battalions Mixed on Training Field (学员合成营搅活演兵场),” *PLA Daily*, March 24, 2012, accessed at www.chinamil.com.cn/jfjbmap/content/2012-03/24/content_1371.htm on 21 July 2012.

- The Air Defense Command Academy, Zhengzhou has been renamed the Air Defense Academy.
- The Chemical Defense Command and Engineering Academy in Yangfang, Beijing has been renamed the Chemical Defense Academy.
- The Engineer Command Academy in Xuzhou has been renamed the Engineer Academy.
- The Logistics Command Academy in Beijing has become the Logistics Academy.
- The Armament Command and Technology Academy in Huairou, outside of Beijing has become the Armament Academy.⁵⁷

The following basic-level academies fall under the General Staff Department's military/operations system:⁵⁸

- Air Defense Academy, Zhengzhou
- Armored Force Academy, Bengbu
- Army Academy, Kunming
- Army Academy, Nanchang
- Army Academy (Mechanized Infantry), Shijiazhuang
- Border Defense Academy, Xi'an
- Army Academy (Military Medicine), Urumqi
- Army Aviation Corps Academy, Beijing
- Army Guided Missile Academy, Langfang (status uncertain)
- Army Officers Academy, Hefei
- Artillery Academy, Nanjing, with Xuanhua branch
- Artillery Academy, Shenyang
- Chemical Defense Academy, Yangfang, Beijing
- Communications Academy, Chongqing
- Communications Academy, Xi'an
- Electronic Engineering Academy, Hefei
- Engineer Academy, Xuzhou
- Foreign Languages Academy, Luoyang
- Information Engineering University, Zhengzhou (with four campuses)
- International Relations Academy, Nanjing
- National Defense Information Academy, Wuhan
- Physical Education Academy (with Communications Training Group), Guangzhou
- Science and Engineering Technology University, Nanjing (with Engineer Corps School)

It is noteworthy that the former Xi'an Army Academy has been renamed the Border Defense Academy indicating the continuing requirement for officers to fill border defense billets. The former Artillery Academy in Hefei has been renamed the Army Officers Academy to reflect its

⁵⁷ "The Strategy Behind Military Academy Reform (中国军校改革背后的战略指向)," *PLA Daily*, January 9, 2012, accessed at http://chn.chinamil.com.cn/ll/2012-01/09/content_4763254.htm on 21 July 2012.

⁵⁸ The lists of Army academies are based primarily on the *Directory of PRC Military Personalities, October 2011*, updated by information from the Chinese media.

more combined-arms orientation and will train infantry, armored, artillery, and air defense officers.⁵⁹

The academies that fall under the General Political Department's political system are:

- Art Academy (or College)
- Political Academy, Nanjing (with Shanghai branch)
- Political Academy, Xi'an

The academies that fall under the General Logistics Department's logistics system are:

- Logistics Academy, Beijing
- Logistics Engineering Academy, Chongqing
- Military Transportation Academy, Tianjin
- Military Economics Academy, Hubei
- Military Medical Sciences Academy, Beijing (with Military Veterinary Research Institute in Jilin)
- Second Military Medical University, Shanghai
- Third Military Medical University, Chongqing
- Fourth Military Medical University, Xi'an
- Vessels (Army Ship) Academy, Zhenjiang

The academies that fall under the General Armament Department's armament system are:

- Armament Academy, Huairou, Beijing
- Armored Force Engineering Academy, Changxindian, Beijing
- Armored Force Technical Academy, Changchun
- Ordnance Engineering Academy, Shijiazhuang

Many of the officer academies also have classes (instruction departments) for NCOs.

Conclusion

The Chinese government has presented a broad, general outline of how the PLA Army will modernize. Analysis of publicly available data provides evidence to support the implementation of China's officially stated intentions. There is no doubt the PLA is smaller but more technologically-advanced than it was 15 years ago. The Army is estimated to be at least 25 percent smaller in number of personnel with a similar reduction in the number of mobile combat units and the downsizing of many remaining divisions. All the while, its equipment has been upgraded through the introduction of new technology on new weapons platforms and new technologies added to older weapons still in the inventory. Nonetheless, less than half of the equipment in the force can now be considered modern (much less state-of-the-art) and the modernization of the full force is still many years away. Even the public 2020 goal calls only for "accomplishing mechanization and *attaining major progress* in informationization." Achieving

⁵⁹ "PLA Army Officers Academy Established, Previously Was PLA Artillery Academy (解放军陆军军官学院成立前身是解放军炮兵学院)," *Xinhua*, 2 November 2012, accessed at http://news.xinhuanet.com/politics/2011-11/02/c_111141649.htm on 21 July 2012.

full informationization will be sometime in the more distant future. Future personnel and force structure cuts could speed up this process by requiring fewer items of new equipment to be issued to a smaller force.

National and Local Command Structures Still Focus on Mainland Defense

While rumors of additional cuts to PLA personnel and force structure are common, no plans have been announced officially. If future cuts are made, many headquarters and combat maneuver units would likely be affected either through complete elimination or downsizing. Serious cuts in officer billets could be achieved by restructuring the MR, MD, MSD/garrison, and PAFD chain of command. Many billets in the 30-plus corps leader-grade provincial MDs and over 300 division leader-grade MSD and garrison headquarters appear to accommodate senior officers in the last years of their careers before they retire. Abolishing or adjusting the size of many of these headquarters and redistributing their responsibilities could save the PLA money, which could then be applied to other uses. Such a restructuring, however, would almost certainly encounter significant bureaucratic opposition. Reforming the PLA's top-heavy organization will not be easy, but could be justified in part by advances in communications and organizational effectiveness that allow fewer headquarters to command and control more units, as well as the monetary savings that would accrue.

Even if potential future personnel cuts of several hundred thousand active-duty PLA personnel were to be borne primarily by the Army, the Army would still remain the largest service. Its officers would continue to dominate headquarters from Beijing to county-level through the MR-MD-MSD-PAFD chain of command. This command system reflects a traditional continental, defensive orientation, which is only gradually being expanded beyond China's borders and coastal waters. Despite the low probability of a major land invasion of the mainland, the PLA's chain of command still is structured mainly to cope with such a threat by implementing defense mobilization at the regional or national level. The existing chain of command also appears structured to react to (and in some cases deter) a variety of domestic non-traditional security challenges, such as internal stability, terrorism, disaster relief, medical emergencies, etc. For these missions, local PLA reserve and militia units, commanded by MD, MSD, and PAFD headquarters, often are first-responders and provide manpower and equipment support before out-of-area forces of many types (military, paramilitary, and civilian) reach the scene.

To date, though there has been significant change to the PLA *force* structure, there is little evidence to suggest the *command* and *logistics* structures have adapted to address the more likely combat and non-traditional security contingencies that may occur beyond China's borders and near seas. PLA doctrine foresees many forms of joint campaigns executed beyond the Chinese mainland that will put naval, air force, or missile units in the lead role. Currently the existing peacetime chain of command will have to shift to an *ad hoc* wartime war zone command structure to accommodate the operational changes necessary to accomplish these long-distance joint missions. More efficient command structures have been discussed in the Chinese military media (mostly talk about flattening the command system), but major changes to the command structure (beyond the reduction of the number of MRs in the 1980s) that was created decades ago in a much different threat environment have yet to be implemented. Imagine the impact on PLA culture if a coastal MR were to be commanded by a naval officer or if the Beijing MR were to be

commanded by an air force officer because of the threat from long-range, precision aerospace weapons.

Operational and Tactical Force Structure Reflects Strategically Defensive Orientation

Over the past 15 years downsizing has occurred in all military regions, even those in which no group armies were eliminated. In particular, despite the planning focus afforded the Taiwan contingency over this time period, the number of maneuver battalions in the three military regions opposite Taiwan (Nanjing, Guangzhou, and Jinan MRs) has been reduced considerably due to the downsizing of divisions to brigades and the changes in structure of the remaining divisions. (See Table 4.) At the same time, new equipment and weapons with longer ranges have increased the capabilities of the smaller force (though this has yet to be proved in actual combat). Perhaps the eventual plan is to transform all divisions into brigades, but before that is accomplished the educational system and force structure must be changed to build battalion headquarters that can function without the need for intervening regimental headquarters.

Table 4. Army Maneuver (Infantry, Armored, Helicopter, and SOF) Units Opposite Taiwan

Army Maneuver	1997	2012
Group armies	9	8
Infantry/Armored divisions	29	11
Infantry/Armored brigades	5	19
Brigade equivalents*	63	40
Helicopter regiments/brigades	< 3	3/2
SOF groups/brigades	< 3	1/2

* Brigade equivalent = 5 battalions; 1 division = 2 brigade equivalents.

While Army units have become more mechanized and informationized, their deployments continue to reflect a strategically defensive posture, emphasizing the Army’s mission to deter aggression against the Chinese mainland. Group armies and independent units have both offensive and defensive capabilities at the operational and tactical levels. The manner in which they will operate (offensively or defensively) depends on the military situation and the tasks assigned them, not on the location of their home garrisons. With only a few exceptions, large formations of ground troops are stationed at considerable distances from borders and would require long-distance movements to get into assembly areas and offensive positions. In nearly all cases, Army units would be required to move significant distances using land (road and rail), air, and water (sea or river) means of transportation (to say nothing of the logistics build-up necessary for any offensive action). In the era of satellite reconnaissance and social media, such movements are unlikely to be made in secret reducing the chances of ground forces attaining strategic surprise to close to zero. (Achieving operational and tactical surprise, however, could be possible through the use of deception and concealment measures.)

Further reflecting the PLA’s strategically defensive and deterrence posture is the limited long-distance airlift capacity in the PLAAF, the limited number of medium and large amphibious

vessels in the PLAN, and the relatively small size of the Army's helicopter force. The PLA's logistics infrastructure remains focused on interior lines of communications, with minimal capacity to project and sustain forces on exterior lines. In order to conduct long-distance movements for large units, the use of civilian transportation and logistics/maintenance support is essential. PLA doctrine calls for the mobilization of civilian forces to support military campaigns. Such mobilization also is likely to compromise strategic surprise in the modern era. Mobilization could, however, be used to signal China's intentions as part of China's strategy of deterrence.

As the Army continues to be reduced in size a major development to watch will be whether the PLA's long-range sea and airlift capabilities are built up using some of the manpower billets and funds saved by shrinking the size of the ground force. A more mechanized Army requires much greater rail, sea, and air transport capacity and much larger fuel and repair requirements than the truck or foot-mobile forces of the past. The Army's amphibious units outnumber the PLAN's Marine force by two-to-one (two Army amphibious mechanized infantry divisions and one amphibious armored brigade to two Marine brigades). Yet most navy amphibious ships (including both Type 071 amphibious assault ships that have been commissioned) are assigned to the South Sea Fleet and provide support mainly to the two PLAN Marine brigades. The Army's ship transport units provide transport, logistics, and reconnaissance support mostly to coastal defense units, but would be of little help in moving large formations over long distances at sea. Thus, the PLA's potential for long-range amphibious operations appears for now to be found in the Marine brigades and not the Army. Likewise, except for some Army reconnaissance and SOF parachute capabilities, the vast majority of the PLA's airborne (parachute) assault capability is found in the PLAAF's three airborne divisions.

Army aviation (helicopter) and special operations forces represent the Army's main potential for putting boots on the ground in distant operational areas. (Unlike SOF units in some other countries, PLA SOF units are not supported by a wide array of special mission fixed wing and rotary wing aircraft and other enabling units to provide stealthy transport, firepower, and logistics support.) It appears likely that helicopter forces will continue to grow in size and diversify their mission capabilities. The creation of an airmobile force of brigade or multi-brigade size is possible, but would require the addition probably of at least a hundred more helicopters in one region for such a force to be capable of operating on its own (without drawing on helicopters from other MRs).⁶⁰ Moreover, a PLA airmobile force would take a number of years (if not a decade or more) to develop doctrine and practice helicopter operations up to and at the brigade level to attain the proficiency necessary for PLA leaders to have confidence in its employment.

A final element indicating the PLA's strategically defensive posture is the fulltime commitment of at least 12 to 13 percent of the Army's combat units to border and coastal defense. (Probably even larger percentages of PLAN and PLAAF units have primarily coastal/littoral defense or air defense of the mainland missions.) These units, located immediately on China's borders, have defensive, early warning missions and are not suited for cross-border offensive operations.

⁶⁰ For the sake of comparison, according to the U.S. Army Combined Arms Center website, the 101st Airborne Division (Air Assault) is "capable of inserting a 4,000 soldier combined arms task force, 150-kilometers into enemy terrain in one lift, and possess[es] 281 helicopters, including three battalions of Apache attack helicopters..." See "101st Airborne Division (Air Assault)," <http://usacac.army.mil/cac2/call/thesaurus/toc.asp?id=21> on 21 July 2012.

Furthermore, they are unlikely to be moved from one region to another as reinforcements during times of emergency. The creation of the Border Defense Academy from the Xi'an Army Academy suggests that border defense units will continue to be an important part of the Army force structure.

Smaller Forces Require Higher Readiness and Training Levels and a Positive Image

The smaller Army, now and in the future, means that training will become even more important so that all units maintain a high level of operational readiness. A smaller force loses the luxury of designating only some forces as having priority for modernization or being assigned rapid reaction missions. In fact, over the past decade unit modernization is occurring in all military regions and all units are training more to achieve operational readiness. The emphasis on preparing all units for their deterrence, wartime, and non-traditional security missions is seen by the fact that units from all military regions take part in training with foreign militaries, are assigned UN peacekeeping missions, and respond to disaster relief and other emergencies as necessary. New equipment is found in all military regions, as is old equipment. Major training themes observed in all military regions include experimentation with command and control structures for joint operations, how to conduct combined arms operations at battalion level, testing trans-regional deployments within China, improving land-air integration, and conducting operations in complex electromagnetic environments on widely dispersed battlefields connected by improved communications and computer networks.

Senior PLA leaders are well aware of the capabilities of their force. They have made realistic evaluations of the many obstacles to modernization yet to be overcome and are cognizant of the gap between PLA capabilities and that of other advanced militaries. Realistic evaluations of personnel qualities, force structure, training, logistics, and technological shortcomings are common in the PLA's own internal writings. Such assessments are found much less frequently in the English-language *PLA Daily*, in their White Papers, and on Chinese television, all of which are used in media warfare campaigns to present the positive image China's leaders want their own public and foreign audiences have about the PLA.

This positive image the propaganda system seeks to portray to domestic and foreign audiences also is part of the PLA's overall deterrence posture as it emphasizes newly developed capabilities and China's willingness to use force to protect its sovereignty and territorial integrity. PLA leaders must silently smile to themselves as the foreign media exaggerate and sensationalize PLA capabilities and weapons systems in existence, in development, or in the form of plastic models. They probably also approve of the headline catching statements made by their own military punditry, both active duty and retired, who have no personal responsibilities for PLA readiness, but command the unquestioning attention of the domestic and foreign general media. Such bloviations may further the cause of deterrence, but if too extreme can be officially disavowed as the pundit's "private opinion" and not reflecting Chinese policy. PLA leaders can be sure that such statements will receive more foreign attention than the actual progress the force is making, or problems it is facing, in accomplishing its modernization goals.

PLA leaders probably have concluded that no amount of openness and transparency will satisfy their foreign critics. Therefore, they likely will continue to limit the amount of operational and tactical level details released in the White Papers. However, some important details will continue

to be published by their own media aimed at the domestic military and security audience. Individual details found in these sources are unlikely to attract widespread foreign public attention and the General Political Department system will constantly be alert for security violations.

Understanding the PLA as organization will never be easy (in part because it is always changing), but some degree of comprehension is possible through the long-term analysis of the information available. In doing so, however, foreign analysts must not apply their own templates and predispositions to PLA intentions, capabilities, and force structure. As much as the PLA studies other militaries, it inevitably finds its own way of organizing its forces to achieve the objectives set for it by the Chinese Communist Party leadership.

Appendix 1: Maps of Ground Force Units, Subdepartments, and Reserves

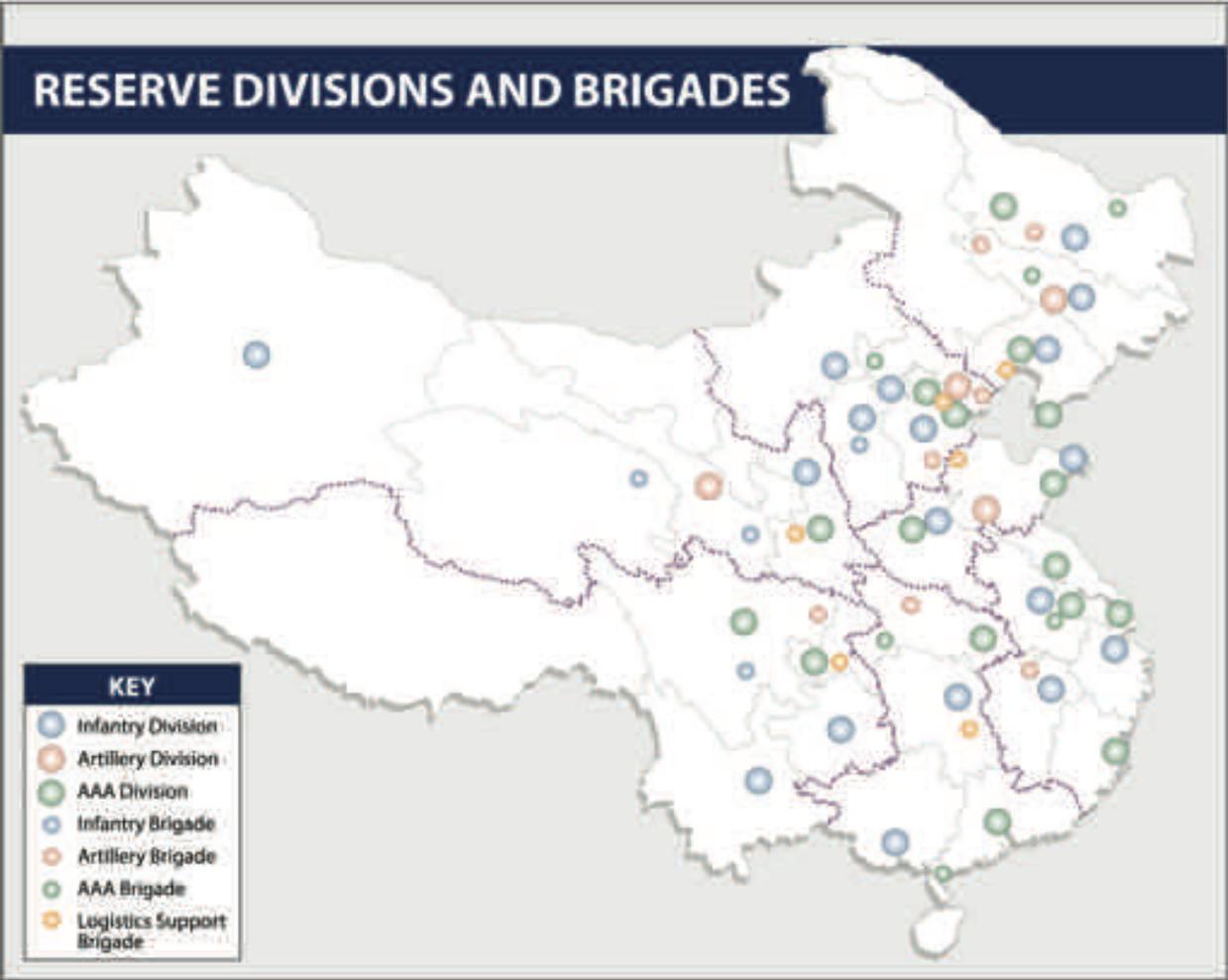
Figure 1: PLA Major Ground Units



Figure 2: PLA Joint Logistics Subdepartments



Figure 3: PLA Reserve Divisions and Brigades



Chapter Nine: The People's Liberation Army Navy as an Evolving Organization

Nan Li

Introduction

This chapter examines the People's Liberation Army Navy (PLAN) as an evolving organization. It addresses three sets of research questions. The first set deals with the issue of headquarters-level concepts and command, control, and coordination. Specifically, what are the PLAN's roles and missions? What constitutes the PLAN's leadership and administrative and functional departments (海军领导机关), and what are their grades and ranks? How does the Party Committee decision style reconcile with the need for "singularly exercising power" ("专一事权") for a military organization such as the PLAN, and what is the relationship between the navy leadership and the PLAN headquarters' first-level departments (一级部)? What organizational changes have occurred in the PLAN Headquarters' first-level departments, and what subordinate departments constitute them? What are the selection trends of the PLAN leadership?

The second set of questions has to do with the PLAN below the headquarters-level, including the fleet, base, and *zhidui* levels. What are the major combatant, research, and professional military education (PME) organizations that constitute the PLAN? What are their grades and ranks? What major organizational changes have been introduced to them?

The third set of questions concerns the relationship between the evolution of the PLAN as an organization and China's evolving naval strategy, as well as the relationship of the PLAN with other elements of the People's Liberation Army (PLA) and defense industry organizations, mainly in terms of joint operations and naval equipment and armament development. How has the PLAN evolved with the changing Chinese naval strategy? What organizational changes have been introduced to enhance the coordination between the PLAN and non-PLAN organizations for joint operations and for naval equipment and armament development?

It is important to note that this chapter intends to highlight the recent state of the PLAN, but not the history of the PLAN as an organization, except for where there have been important organizational changes over time. Neither is it about the future PLAN as an organization, even though it may provide a conceptual basis for thinking more meaningfully about future evolution of the PLAN as an organization. Moreover, it intends to stress the more important organizational aspects of the PLAN and related issues, rather than numerous organizational details of the PLAN. The author believes that these emphases are warranted by limits of space and the need for sharpened understanding of more important organizational issues.

The chapter has three sections, each of which addresses the three sets of questions note above. Section 1 examines major issues associated with PLAN roles, missions, and headquarters-level leadership. Section 2 discusses the PLAN fleet and below organizations. Section 3 addresses major issues related to the relationship between the PLAN and the evolving naval strategy, joint operations, and civil-military integration. For major leaders and their background, administrative and functional departments, combat units, and research and PME institutions that constitute the PLAN, see the appropriate tables. In addition, a list of key terminology, such as *zhidui* and *dadui*,

can be found in the Introduction chapter. Finally, for a good overview of the PLAN's organizational structure, see the Office of Naval Intelligence's *China's Navy 2007*.¹

PLAN Roles, Missions, and Headquarters-level Leadership

China's National Defense 2010 specifies the primary objectives and missions (目标和任务) of China's national defense as "safeguarding national sovereignty, security and development interests," particularly in terms of "defending the security of sovereign lands, inner and territorial waters, and sovereign air space," "safeguarding maritime rights and interests ..." "opposing and deterring 'Taiwan independence'..." and "safeguarding the important strategic opportunity for national development." It also stresses the role of the PLA in "safeguarding world peace and stability" by "participating in United Nations peacekeeping, in maritime escort, in international counter-terrorism, and in disaster-relief operations."²

These objectives and missions have clearly informed the roles and missions of the PLAN, which "places emphasis on modernizing the comprehensive combat capabilities and strengthening strategic deterrence and counterattack capabilities as required by the near-seas defense strategy (近海防御战略), and on developing far-seas capabilities for cooperation and for coping with non-traditional security threats (发展远海合作与应对非传统安全威胁能力)."³ In late 2011, PLAN commander, Admiral Wu Shengli, also stressed that "the scientific development of navy construction is the unified (balanced) development to enhance both near-seas capabilities (近海能力) and far-seas protection capabilities (远海防卫能力)."⁴ The near-seas defense strategy clearly aims to safeguard Chinese sovereign waters and maritime rights and interests in the "near seas" (Yellow, East and South China Seas); to oppose "Taiwan independence"; and to deter maritime territorial and interests disputes in the near seas from escalating to military conflicts that may jeopardize the window of strategic opportunity for national development. Far-seas strategy, on the other hand, intends to safeguard the expanding Chinese overseas development interests such as investment and personnel safety, particularly in times of crisis; and to enhance the security of vital sea lanes, on which shipment of goods and resources depends, against piracy and terrorism. The PLAN, for instance, deployed a naval frigate to the Mediterranean briefly in February 2011, to support evacuation of Chinese nationals during the Libyan crisis. But more importantly, since December 2008, the PLAN has deployed naval escort groups to Gulf of Aden (Horn of Africa) for continuous patrol to keep the sea lanes open against piracy.⁵

The PLAN's Headquarters in Beijing, which is composed of leaders and administrative and functional departments, is the most important organization that operationalizes the objectives and missions of China's national defense into the roles and missions of the PLAN and supervises the implementation of these roles and missions. Major components include the commander and

¹ *China's Navy 2007* can be found at www.fas.org/irp/agency/oni/chinanavy2007.pdf.

² "China's National Defense in 2010" ("2010 中国的国防"), *Xinhua*, March 31, 2011.

³ *Ibid.*

⁴ Wu Shengli, "Deeply Implement Important Strategic Thought of Primary Theme and Primary Line, Actively Push Better and Faster Development of Navy Construction" ("深入贯彻主题主线重大战略思想, 积极推动海军建设又好又快发展"), *People's Navy* (人民海军), September 20, 2011. *People's Navy* is a daily newspaper published by PLAN's Political Department.

⁵ See "The Navy Convenes the Symposium on the 3rd Anniversary of Naval Escort in Gulf of Aden" ("海军召开亚丁湾护航三周年座谈会"). *People's Navy* (人民海军), January 12, 2012.

political commissar of the PLAN and their deputies; the PLAN Party Committee and its Standing Committee; and the four first-level departments, namely the Headquarters Department (司令部), Political Department (政治部) Logistics Department (后勤部), and Equipment Department (装备部), which is often identified as the Armament Department. The second-level departments within each of these four departments reflect their specialized functions. The second-level departments are not necessarily in the correct protocol order, but represent the best estimate. See Table 1.

Table 1: Major Headquarters-level Departments

First-level departments	Headquarters Department (司令部)	Political Department (政治部)	Logistics Department (后勤部)	Equipment Department (装备部)
Major second-level departments	<ul style="list-style-type: none"> • General Office (办公室) • Operations Department (作战部) • Intelligence Department (情报部, including technical bureau, or 技术局, a third-level department) • Electronics Department (电子部) • Informatization Department (信息化部, formerly Telecommunications, or 通信部) • Training Department (训练部) • Military Affairs Department (军务部, handling affairs for enlisted) • Naval Aviation Department (海航部) • Mobilization Department (动员部) • Navigation Support Department (航保部) 	<ul style="list-style-type: none"> • General Office • Organization Department (组织部, handling party work) • Cadre Department (干部部, handling personnel work for officers) • Propaganda Department (宣传部) • Liaison Department (联络部) • Security Department (保卫部, handling internal security) • Procuratorate (检察院) • Court (法院) 	<ul style="list-style-type: none"> • Headquarters Department (司令部) • Political Department (政治部) • Combat services Department (战勤部) • Finance Department (财务部) • Quartermaster, Materials, and POL Department (军需物质油料部) • Military Ports, Airfields, and Barracks Department (军港, 机场, 营房部) • Health Department (卫生部) • Auditing Bureau (审计局) 	<ul style="list-style-type: none"> • Headquarters Department (司令部) • Political Department (政治部) • Supervision and Management Department (监督管理部) • Comprehensive Planning Department (综合计划部) • Ships and Vessels Department (舰船部) • Electronics Department (电子部) • Weapons Department (兵器部) • General-use Armament Support Department (通用装备保障部) • Ship Technology Support Department (舰船技术保障部) • Aviation Technology Support Department (航空技术保障部) • Ordnance Support Department (军械保障部) • Military Representative Bureaus (军代局) in Shanghai, Guangzhou, Wuhan, Shenyang, Xian, Chongqing, and Tianjin

The PLAN is a military region (MR) leader-grade (正大军区职) organization. As noted in the book's Introduction, although the PLAN is an MR leader-grade organization, in 2004, Admiral

Zhang Dingfa was appointed to the Central Military Commission (CMC), which is China's highest military policy making institution, and was assigned the grade of CMC member (军委委员).⁶ However, the political commissar (PC), who serves as the Party Committee secretary, is an MR leader-grade officer. The grade and rank structure for the key leaders is shown in Table 2 below. Note that each grade has a primary and secondary rank. See Section 2 and Appendix B in the Introduction chapter for information about the primary and secondary ranks for each grade.

Table 2: Grade and Rank Structure for Headquarters-level Leadership

Grade	Leaders (Ranks)	Headquarters Department (Ranks)	Political Department (Ranks)	Logistics Department (Ranks)	Equipment Department (Ranks)
CMC Member	PLAN Commander (ADM)				
MR Leader	PLAN PC (ADM/VADM)				
MR Deputy Leader	Deputy Commanders & Deputy PCs (VADM/RADM)	Chief of Staff (VADM/RADM)	Director (VADM/RADM)		
Corps Leader		Deputy Chiefs of Staff (RADM/VADM)	Deputy Directors (RADM/VADM)	Director/PC (RADM/VADM)	Director/PC (RADM/VADM)
Corps Deputy Leader				Deputy Directors (RADM/SCPT)	Deputy Directors (RADM/SCPT)
Division Leader		2 nd Level Departments (SCPT/RADM)			

Because the PLAN's grade is the same as the seven MRs where army officers hold the position of MR commanders, this MR/army-dominated PLA structure is clearly biased against non-army services such as the PLAN. This bias, however, may be gradually corrected. As noted above, Zhang Dingfa became a CMC Member in 2004, and his successor, Wu Shengli, was appointed as a CMC Member after he met the grade and rank time requirements in October 2007. Meanwhile,

⁶ When Zhang Dingfa died in mid-2006, Vice Admiral Wu Shengli, who at the time was serving as one of the Deputy Chiefs of the General Staff, was appointed as the new PLAN commander in August 2006. He did not receive his third star as an admiral until July 2007 and was not appointed as a CMC member until the 17th Party Congress in October 2007. See Section 2 of the Introduction Chapter for an explanation. Zhang was only the second PLAN commander to serve as a CMC member. The first was Xiao Jinguang, who was the commander from January 1950 to December 1979 and served as a CMC member from November 1956 to September 1982. For information on Xiao, see *Dictionary of China's Communist Party Central Committee Members for 1921-2003*, Beijing, Chinese Communist Party History Press, 2004, p. 864-865.

the seven MR commanders are not CMC Members.⁷ Furthermore, if the plan to establish the PLA Army Headquarters in Beijing is implemented, the number of MRs and group armies and their sizes are likely to be further reduced to the extent that MRs may become genuine theater joint operations headquarters, where commanding officers from non-army services such as the PLAN may become MR commanders.⁸

At the headquarters level, important decisions are made by the PLAN Party Committee Standing Committee and important orders are cosigned by the commander, who serves as the Party deputy secretary, and the political commissar, who serves as the Party secretary. This committee-style decision and dual-command process may minimize the chances of arbitrary decisions, and may also allow for more time to search for political solutions in times of crisis. On the other hand, the general perception is that this consensus-building decision style may be too divisive and slow for crisis response, causing loss of opportunities and initiatives that may incur a high cost for the PLAN.

While this perception may be true to a certain extent, it is also important to note that these processes are mostly for administrative decisions in times of peace, and should not be confused with operational or combat command, or making decisions in times of war. As explained by the PLA's leading expert on operational command and control:

The basic characteristic of operational command is centralized power (集权). That is, to let the commander make the operational decision on operational objective, force deployment, and basic fighting methods, and take personal responsibility for operational processes and victory and defeat. Power-sharing and making excuses are absolutely disallowed...Our army has consistently adhered to the principle that while both principal military and political officers hold common responsibility, the principal military officer is the first responsible person (军政主官共同负责, 军事主官为第一负责人), enabling him to exercise power to command operations...Making timely decisions is the commander's first responsibility and fundamental power (首要职责和基本权力). Any level of

⁷ Prior to the 12th Party Congress in 1982, the CMC had over 60 members, including all of the senior Army leaders. Since the 12th Party Congress, the number was decreased to only the senior General Department leaders, the Minister of Defense, and, since 2004, the commanders of the PLAN, Air Force, and Second Artillery. See "The Central Military Commission," in Hu Guangzheng, ed., *China Military Encyclopedia* Version 2, *Military Organization* (军制) Volume 1, Beijing: China Encyclopedia Publishing House, July 2007, p. 22-31.

⁸ The December 2008 CMC meeting, for instance, allegedly reached a general consensus that the PLA would be gradually be downsized by 700,000 billets, mainly through eliminating more group armies and MR bureaucracies by consolidating the seven MRs into four, and by establishing an Army headquarters in Beijing to command all the remaining army units. Conversations with informed sources in Beijing in 2009. See also citations of two anonymous sources and Xu Guangyu, a retired PLA major general, in Benjamin Kang and Lucy Hornby, "China Air, Naval Boost Risks Raising Tension," *Reuters*, September 30, 2009. Xu Guangyu, "Forecast on Important Changes in the Chinese Army Over the Next 20 Years," *Beijing Chinese Academy of Social Sciences* in Chinese, 27 July 2010. Du Gang, "Discussion of Requirements for Developing China's Military Strength as Part of China's Peaceful Development" (论中国和平发展中的军事力量需求), *Strategy and Management* (战略与管理), 2004-3, p. 56. Found at www.aisixiang.com/data/5096.html.

organizations cannot be allowed to substitute or weaken them under any excuse or in any form.⁹

Another commonly held perception is that the so-called “command relationship” (“指挥机关”), whereby the PLAN first-level departments exercise command and control over the lower-level combat units.¹⁰ This may be a misperception because:

Departments are the commander’s departments (机关是指挥员的机关)...They assist (辅助) the commander to command, but do not substitute for his command. They are the departments for that particular level of commander, but not for higher levels. Nor is the relationship to (lower-level) units a command relationship...The act of frequently issuing directives to lower-level corresponding departments must be forbidden, so that the highly effective functioning of the chain of command of “commander-units” can be ensured.¹¹

It seems that the PLA’s understanding of intra-organizational relationships is not fundamentally different from the conception of “line and staff” developed by Western organizational theorists, namely that a formal organization consists of two major components: the vertical line-based formal authority consisting of officials with different grades or ranks; and the staff made up of professional and technical specialists who furnish specialized and technical advice to the line officials at a particular level.¹²

PLAN Headquarters Organizational Reforms

The PLAN Headquarters’ first-level departments have experienced two major organizational changes since 1998, when the PLA created the General Armament Department (GAD) and each MR created a comparable Equipment Department. The first change involved creating an Equipment Department and the second involved abolishing the Naval Aviation Headquarters.

PLAN Equipment Department Reforms

In early 1961, the PLAN began reorganizing its equipment organizational structure into the following two departments to overcome various repair and maintenance problems: The Ship Repair and Building Department became the Equipment, Procurement, and Production Supervision Department (海军装备订货建造部); and The Logistics Department’s second-level

⁹ Senior Colonel Sun Ruling, “Singularity Exercise Power: Iron Law of Operational Command” (“以一事权: 作战指挥的铁则”), *Study Times* (学习时报), March 26, 2012. Other works by Sun include *Basic Theory for Operational Command* (作战指挥基础概论) (Beijing: National Defense University [NDU] Press, 2011), and *Strategic Command Study* (战略指挥研究) (Beijing, NDU Press, 2009). *Study Times* is a weekly published by the Central Party School in Beijing.

¹⁰ For a good explanation of command relationships, see *PLA Military Terminology* (中国人民解放军军语), Beijing: Academy of Military Science Press, December 2011, p. 175.

¹¹ Sun, “Singularity Exercise Power.”

¹² See Peter M. Blau and W. R. Scott, *Formal Organizations* (San Francisco: Chandler, 1963), p. 172.

Armament Department (后勤部军械部) became the Equipment Repair Department (装备修理部).¹³

In 1963, the two departments were merged to become the Equipment Department (海军装备部). However, in 1974, following the excesses of the Cultural Revolution, a new Equipment and Technical Department (装备技术部) was formed to supervise equipment R&D, building inspection, and repair. In 1985, the Navy re-established the Equipment Repair Department as a separate entity from the Equipment and Technical Department. The Equipment Repair Department incorporated repair for weapon systems, communications, radar, sonar, navigation support equipment, and defense rescue equipment. Following the establishment of the GAD in 1998, the PLAN again combined the Equipment Repair Department with the Equipment and Technical Department, along with the Headquarters Department's subordinate Equipment Department, as well as the Logistics Department's subordinate Armament Department, into the Equipment Department (装备部), and made it responsible for all naval equipment except vehicles, which remains the responsibility of the Logistics Department.¹⁴

PLAN Naval Aviation Headquarters Reforms

In approximately 1986, the Naval Aviation Department was re-subordinated under the Headquarters Department.¹⁵ In April 1952, the PLAN formally established the Naval Aviation Department as one of six separate administrative departments within PLAN Headquarters. Naval Aviation also became one of the PLAN's five operational arms, along with the submarine, surface, marine corps, and coastal defense branches. Besides school closings, the Cultural Revolution had disastrous consequences across the board for Naval Aviation. The primary person responsible for Naval Aviation's demise was the PLAN's political commissar, Li Zuopeng, who was part of Defense Minister Lin Biao's clique. Besides closing Naval Aviation schools, Li abolished Naval Aviation headquarters and its entire command staff in November 1969. Therefore, aviation units within the fleets were left to themselves without guidance from the PLAN headquarters. The headquarters was not reestablished until May 1978.¹⁶

In October 2003, the CMC again abolished Naval Aviation Headquarters and assigned all of its directly subordinate units to fleet Naval Aviation Headquarters, which have existed since at least the 1980s. Since then, PLAN Headquarters has had a second-level Naval Aviation Department subordinate to the Headquarters Department and a second-level Naval Aviation Technical Support Department (i.e., aircraft maintenance) subordinate to the Equipment Department.¹⁷

To the extent that a first-level department tends to contribute to bloating of headquarters-level bureaucracy because it usually has numerous second and third-level departments, this change has

¹³ *China Today: Navy* (当代中国海军), Beijing: China Social Sciences Press, 1989, p. 246, 253-254, 324, and 554-555. See also "Historical Evolution of the PLAN's Equipment Department" ("中国人民解放军海军装备部历史沿革"), February 10, 2011, www.360doc.com/content/11/0210/11/955164_91807512.shtml.

¹⁴ *World Military Yearbook*, 1999.

¹⁵ *World Military Yearbook*, 1987.

¹⁶ William W. Whitson, *The Chinese High Command: A History of Communist Military Politics, 1927-71*, Praeger, New York, Washington, London, 1973, p. 550. Stanley Karnow, *Mao and China: A Legacy of Turmoil*, Penguin Books, New York, 1972, p. 429. *China Today: Air Force*, Beijing: China Social Sciences Press, 1989, p. 481.

¹⁷ http://blog.huanqiu.com/?uid-94458-action-viewspace-itemid-113448_

clearly helped to streamline the headquarters-level bureaucracy. But more importantly, it has helped to integrate naval aviation forces into the fleet command and operational structure. This is because rather than answering to a headquarters-level naval aviation bureaucracy, which tends to divorce these forces from the combat fleet, these forces now answer directly to the fleet commander through its fleet-level organization.

Leadership

What are the trends in PLAN leadership selection? Some criteria are quite constant and equal to candidates eligible for promotion to more senior grades or higher ranks. These are college education, political trustworthiness (all officers in commanding/leadership billets must be Party members), and age and term limits for different grades.¹⁸ What can make a difference in career prospects for different officers, or why some are promoted in grade and/or rank while others are not, seems to be related to naval arms specialization. As Tables 3 and 4 show, for instance, even though the PLAN lists submarines as first in protocol order of the five arms, followed by surface, aviation, marines, and coastal defense, the majority of flag officers (excluding political officers) specialize in surface warfare. Some may attribute this surface bias to the fact that PLAN commander Wu is a surface warfare officer. But this bias still existed when Zhang Dingfa, a submariner, was PLAN commander (2003-2006), or when Shi Yunsheng, a naval aviator, held this position (1996-2003).

A more plausible explanation for this bias may be that surface ships have always constituted the biggest proportion of the PLAN forces. Because surface ships are more manpower-intensive if compared with naval combat aircraft and submarines, and PLAN marines and shore-based coastal defense arms are relatively small, they occupy the majority of PLAN manpower. This suggests that surface warfare officers form the largest pool for eligible officers to be selected for promotion. Also, because China has not been involved in a major maritime conflict for decades, the best ways to evaluate the performance and competence of naval officers selected for promotion include naval exercises and peacetime missions such as naval diplomacy and counter-piracy, which are most likely to involve surface ships rather than the other arms (See Tables 3 and 4).

¹⁸ See *Law on Active Duty Officers of The People's Republic of China* (中华人民共和国现役军官法) (Amended and issued by National People's Congress [NPC] based on the decision at the 19th Meeting of the 9th NPC to amend this law on December 28, 2000); *Regulations on PLA Officers and Ranks* (中国人民解放军军官军衔条例) (Amended and issued by the NPC based on the decision at the 7th Meeting of the 8th NPC Standing Committee to amend these regulations on May 12, 1994); and *Regulations on Appointing and Dismissing PLA Active Duty Officers* (中国人民解放军现役军官职务任免条例) (Issued by the CMC, January 4, 2002).

Table 3: Major PLAN Commanding Officers*

	Position and rank	Party Committee Standing Committee	Date of birth	Unit origin	Specialty	Date of current position	Previous position
Wu Shengli	Commander, ADM	Deputy Secretary	1945	East Sea Fleet (ESF)	Surface	2006	Deputy Chief of PLA General Staff
Liu Xiaojiang	Political commissar (PC), ADM	Secretary	1949	Railway Engineering Corps, Liu Huaqing's personal secretary	Political work	2008	Deputy political commissar (DPC), PLAN
Zhang Yongyi	Deputy commander (DCDR), VADM	Member	1950	North Sea Fleet (NSF)	Naval aviation	2004	Deputy chief of staff (DCOS), PLAN
Ding Yiping	DCDR, VADM	Member	1951	South Sea Fleet (SSF)	Surface	2006	DCOS, PLAN
Su Shiliang	DCDR, VADM	Member	1950	NSF	Surface	2010	Chief of staff (COS), PLAN
Xu Hongmeng	DCDR, VADM	Member	1951	ESF	Submarine	2009	Commander, ESF
Liu Yi	DCDR, VADM	Member	1955	NSF	Submarine	2011	DCDR, ESF
Wang Zhaohai	DPC, VADM	Member	1950	NSF	Political work	2011	Director, PLAN Political Department
Cen Xu	DPC, VADM	Member	1952	Unspecified	Political work	2011	ESF PC
Du Jingcheng	COS (chief of Headquarters Department), VADM	Member	1952	NSF	Surface	2010	Commander, ESF
Ma Faxiang	Director, Political Department, VADM	Member	Unspecified	Unspecified	Political work	2011	PC, PLAN Test and Training Base (Huludao)
Xu Weibin	Director, Logistics Department, RADM	Member	1954	ESF	Surface	2011	Commandant, Nanjing Naval Command College
Hu Yuhao	Director, Equipment Department, specialized and technical RADM (专业技术少将)	Member	Unspecified	Navy Equipment Department	Navy engineer	2010	Director, Shanghai Military Representative Bureau of PLAN Equipment Department

*Materials in all the tables are gleaned from the Chinese military websites such as *junshi.xilu.com* (西陆军事网), conversations with informed sources in China, and *People's Navy*.

Table 4: Fleet Commanding Officers

	Position and rank	Date of birth	Unit Origin	Specialty	Date of current position	Previous position
Tian Zhong	Commander, NSF/ DCDR, Jinan MR, VADM	1956	SSF	Surface	2007	COS, NSF
Bai Wenqi	PC, NSF, RADM	1956	ESF	Political work	2012	PC, NSF Aviation
Su Zhiqian	Commander, ESF/ DCDR, Nanjing MR, VADM	1955	SSF	Surface	2010	Commander, SSF
Ding Haichun	PC, ESF/ DPC, Nanjing MR, VADM	1955	Deng Zhaoxiang's personal secretary	Political work	2011	PC, PLAN Logistics Department
Jiang Weilie	Commander, SSF/ DCDR, Guangzhou MR, VADM	1955	ESF	Surface	2010	Director, PLAN Equipment Department
Wang Dengping	PC, SSF/ DPC, Guangzhou MR, VADM	1952	An unspecified group army	Political work	2012	PC, NSF

On the other hand, the PLAN's submarine force and naval aviation are usually represented in the top leadership echelon of the PLAN, even though they are not likely to constitute the majority that can dominate this echelon. These two arms are represented mainly because of their relative importance in combat. The submarine force, for instance, is the most survivable and therefore potent capabilities for both naval operations and strategic deterrence, while naval aviation is indispensable in providing air cover for naval operations, and may become increasingly important because of the introduction of aircraft carriers. Finally, because PLAN marines and the coastal defense arms are relatively small, they may occasionally but not regularly find representation in the PLAN leadership.

Some may suggest that personal connections to the PLAN commander may make a big difference about career prospects of officers, that is, those who are from the East Sea Fleet (ESF), the unit origin of Admiral Wu, are more likely to be promoted. But as Table 4 shows, among the headquarters-level commanding officers (excluding political officers), four are from the North Sea Fleet (NSF), two (excluding Wu) from the ESF, and only one from the South Sea Fleet (SSF). Adding fleet-level commanding officers (see Table 5), those from the ESF and SSF rise to three.

There are two plausible explanations for this seemingly balanced representation of the three fleets. One is that the higher-level, such as the CMC, has intentionally adjusted top PLAN personnel to achieve a more proportional representation of the three fleets. The other is that this more balanced representation is a random outcome. This is because the three fleets are similar in

size and therefore have similar pools of officers to be selected for promotion, which is likely to produce a similar number of senior officers from each of the three.

On the other hand, if all other things - belonging to the right age group, sufficient time in grade and service, outstanding performance in commanding exercises or naval diplomacy and counter-piracy-related missions, and getting along with colleagues - are relatively equal among the candidates for promotion, then having close personal relations with the PLAN commander or PC are likely to make a difference as to who may be selected for promotion.

Promotions, however, of senior political officers appears to be more related to personal connections such as serving as personal secretaries of former senior PLAN officers. Finally, some senior political officers did not rise through the ranks from within the PLAN, but were transferred to the PLAN from the Army. It is not clear why this has happened. Is it because, unlike professional and technological work, political work is more interchangeable for all services, or because this may enhance jointness? Or is it because these officers have personal connections to top PLA or Party leaders and therefore are freer to pick senior positions to take from different services? It is also not clear how this may be perceived within the PLAN, where many officers have worked hard in order to be promoted to these few top positions.

PLAN Fleet and Below Organizations

Since 2000, major organizational changes have occurred at the fleet and below levels, including the status of the fleet Logistics Department and Equipment Department, re-designation and changing of the grades for the eight corps-level bases that existed in 2000, and the restructuring of the combat and support vessels into different types of *zhidui*. Each of these reforms are discussed below.

Fleet Headquarters Reforms

Below the headquarters-level, the PLAN is organized into three geographically oriented fleets, namely, the NSF, ESF, and SSF. Since 1988, each fleet has been an MR deputy leader-grade organization, and headed by a commander and PC who hold the primary rank of vice admiral and secondary rank of rear admiral. Today, each fleet headquarters is composed of leaders and four first-level departments, which mirror PLAN Headquarters.

In 1985, the PLAN changed the existing four-tiered logistics supply structure—PLAN Headquarters, Fleet Headquarters, support base, and units—to a three-tiered structure—PLAN Headquarters, support base, and units. As such, the three fleet headquarters no longer had a logistics administrative structure. Based on a review of available articles, it appears, however, that each fleet reinstated a Logistics Department (后勤部) in early 2012.¹⁹

¹⁹ See www.qd.chinanews.com/sailor/fc/201201/2411172.html, www.nbzx.org/info.aspx?aid=6896, and http://szb.gdzjdaily.com.cn/zjrb/html/2012-04/01/content_1572163.htm for references to the NSF, ESF, and SSF Logistics Department, respectively. On the newly established ESF Logistics Department tackling issues, see “A Real Account of the ESF Logistics Department Accelerating Resolution of Difficult Issues of Logistics Support” (“东海舰队后勤部加快破解保障难题纪实”), *People's Navy* (人民海军), 30 March 2012. On a command and control exercise of the newly established NSF Equipment Department, see “An Account of the NSF Equipment Department Exploring Massive-Scale Equipment Support” (“北海舰队装备部探索大规模装备保障纪事”), *People's Navy* (人民海军), 22 May 2012. These articles mention that these departments are “just established” (“刚刚成立”).

A review of available information also indicates that none of the three fleets had an Equipment Department (装备部) prior to 2012; however, it appears that each fleet created one in early 2012.²⁰ As a result, each fleet headquarters now mirrors the four first-level departments in PLAN Headquarters.

Table 6 provides an overview of the fleet-level leader positions and first and second-level departments, along with the assigned primary and secondary ranks.

Table 5: Grade and Rank Structure for Fleet-level Leadership

Grade	Leaders (Ranks)	Headquarters Department (Ranks)	Political Department (Ranks)	Logistics Department (Ranks)	Equipment Department (Ranks)
MR Deputy Leader	Fleet Commander & PC (VADM/RADM)				
Corps Leader	Deputy Commanders & PCs (RADM/VADM)	Chief of Staff (RADM/VADM)	Director (RADM/VADM)		
Corps Deputy Leader		Deputy Chiefs of Staff (RADM/SCPT)	Deputy Directors (RADM/SCPT)	Director/PC (RADM/SCPT)	Director/PC (RADM/SCPT)
Division Leader				Deputy Directors (SCPT/RADM)	Deputy Directors (SCPT/RADM)
Division Deputy Leader		2 nd Level Departments (CPT/SCPT)			

Fleet Aviation

The fleet aviation (海军航空兵) organization, which answers to the fleet commanding officers, is a corps leader-grade organization. The commander and PC have the rank of RADM or VADM, and concurrently serve as one of the fleet’s deputy commanders and deputy political commissars, respectively. Naval aviation units are organized into a traditional hierarchy of division (师), regiment (团) battalion-level flight *dadui* (飞行大队), and company-level flight *zhongdui* (飞行中队).²¹ As noted in the PLA Air Force chapter, the PLAAF began creating air brigades in 2012 and Army Aviation has had air brigades for a few years, which may indicate that Naval Aviation

²⁰ See http://news.bandao.cn/news_html/201203/20120303/news_20120303_1827521.shtml, <http://news.cntv.cn/20120716/114975.shtml>, and http://news.china.com.cn/live/2012-10/21/content_16744239.htm for references to the NSF, ESF, and SSF Equipment Department, respectively.

²¹ It is important to note, however, that a flight *dadui* is different from a surface ship *dadui* (舰艇大队) in grades (see Introduction chapter, Appendix A). While the former is of a battalion leader-grade organization and usually headed by a lieutenant commander or commander, the latter is of a regiment leader-grade organization and is headed by a captain or commander.

will soon begin transitioning to air brigades as well. Currently, except for helicopters that are shore-based but can be deployed onto certain vessels, all the other operational naval air capabilities are shore-based. As a result, naval air units also have their own AAA units to provide security of their airfields and assets against air and missile attacks.²² They also have subordinate radar units that provide maritime target acquisitions and navigation support.

Restructuring of the PLAN's Bases in 2004

Based on a review of the Internet and the PLAN's newspaper, *People's Navy* (人民海军), prior to 2004, each fleet had several subordinate bases (基地), which were either a corps leader- or corps deputy leader-grade organization, and could be categorized into three types: operations bases, test bases, and training bases. Of the total number of bases, the following eight were considered major operations bases:

- North Sea Fleet
 - Qingdao, Shandong Province
 - Dalian (Lushun), Liaoning Province
- East Sea Fleet
 - Zhoushan, Zhejiang Province
 - Fujian, Fujian Province
 - Shanghai
- South Sea Fleet
 - Guangzhou, Guangdong Province
 - Yulin, Guangdong Province
 - Zhanjiang, Guangxi Autonomous Region
- The PLAN also has four other specialized bases shown below:
 - Huludao, Liaoning Province is a missile test, research and development (R&D), and training base or test and training base. This base is sometimes noted simply as a Navy Test and R&D Base. Huludao is not an operational base like the eight bases noted above.
 - Jianggezhuang, Shandong Province, is for the PLAN's ballistic missile submarines (SSBN) only.
 - Xiaopingdao, Liaoning Province (located in the NSF), was identified as housing a submarine *zhidui* but it is not considered a base
 - Daxiedao (Daxie Island), Zhejiang Province (located in the ESF), is a wharf or *gangkou* (港口) only, and is not considered a base
- A third type of base, which may or may not be co-located with an operational base, is a training base (训练基地) or training center (训练中心). Whereas the head of each operational base is identified as the commander (司令员), the head of a training base is identified as the director (主人).

Administratively, each base has the same four first-level departments as PLAN Headquarters—Headquarters, Political, Logistics, and Equipment Departments.

²² During the 1980s, Naval Aviation had subordinate surface-to-air missile (SAM) units, but no longer has them. See *China's Navy 2007*, Chapter 7 (Naval Aviation).

To create an organization capable of performing the types of missions the PLAN aspires to, in 2004 the PLAN downgraded all eight of its bases from corps leader grade by one grade to corps deputy leader grade support bases (保障基地). The responsibilities for the new support bases following the downsizing included:

- Equipment technical support
- War materiel replenishment
- Defensive operations

This event marked a major change in the PLAN's operational command and logistics structure: Command for destroyer *zhidui*, nuclear and conventional submarine units, landing ship *zhidui*, as well as other large and medium-sized vessels was removed from the eight downgraded bases and centralized into the three fleet headquarters.²³ With their command and training responsibilities significantly reduced, support bases were now primarily responsible for providing logistics and equipment support to units stationed within their area of jurisdiction. Two major themes starting in 2004 focused on the PLAN first struggling to implement these new command relationships, and second, dealing with the confusion created by the reforms concerning units' roles, relationships, and missions.

The significance of the support base downgrading cannot be overstated. As a result of this downgrading, every billet in the command staff was downgraded, relationships with subordinate and higher-level units changed, and personnel were shuffled around. Support bases' organization and missions were completely redefined. Additionally, within the support base structure, a number of administrative departments were merged and consolidated to eliminate unnecessary or redundant functions. For example, the Quartermaster Division, Materials Division, and POL Division were all combined into one single Quartermaster, Materials, and POL Division. Referred to as "binding" (捆绑), similar consolidations of roles and missions were implemented throughout all of the support bases' divisions.

According to a 14 July 2004 *PLA Daily* "National Defense Forum" article concerning the restructuring, the author stated that in early 2004 PLAN vessel units were reorganized into three separate levels according to their combat missions.²⁴ Details from the article are shown below:

- One purpose of the restructuring is for the Navy to reduce the number of command layers. Vessel *zhidui* with offensive combat capabilities will be directly subordinate to the fleet command, naval aviation will be delegated to the fleets, and the importance of the fleet level will be enhanced. In accordance with the strategic aim of offshore defense and the aim of Taiwan Strait combat missions, the navy will organize its combat ships into three layers for dealing with different combat missions and functions.

²³ Lou Douzi, "Looking at Navy and Air Force Dispositions Following Establishment Restructuring," *PLA Daily* in Chinese, 14 July 2004.

²⁴ *Ibid.*

- The first level consists of the frontline ship units, the navy's fist units, the large- and medium-sized ships such as nuclear and conventional submarine *zhidui*, destroyer *zhidui*, and landing craft *zhidui*, and naval aviation long-range combat aircraft such as the J-8II, H-6, JH-7, and SU-30MK2. After the restructuring, these units will be directly commanded by the fleets, and will no longer be subordinate to support bases. In particular, the destroyer *zhidui* and nuclear and conventional submarines can undertake blue-water combat missions; at present they can fight up to the first island chain, and the submarines can fight up to the second island chain.
- The second level consists of the units undertaking offshore combat missions; the offshore areas usually come under the economic zone, meaning the sea area within the first island chain. The ships undertaking combat missions in these areas are mainly medium-sized and small vessels such as frigates, minesweepers, submarine hunters, and guided missile escort boats. These ships can act as street sweepers in the strait in a Taiwan Strait campaign, or undertake blockade, mine laying, and other tasks.
- The third level consists of combat support vessels, such as service ships, and defense and rescue vessels. From the material revealed so far, the three main fleets have newly organized three to four combat support vessel *zhidui*, and large supply ships for working with the large surface ships in blue-water combat will soon proceed from the shipyards to the military wharves.

Restructuring of the PLAN's Bases in 2012

It appears that the PLAN began downgrading at least some of its eight support bases to division leader-grade garrisons (水警区) during 2012 as noted below:

- In February 2012, the Zhoushan Support Base was renamed the Zhoushan Garrison (舟山水警区).²⁵
- In July 2012, the Shanghai Support Base was renamed the Shanghai Garrison (上海水警区) with the responsibility of supporting minesweeping and chemical defense combat missions.²⁶

²⁵ See "Zhoushan Garrison is Created," 12 February 2012 at www.xici.net/d163458641.htm.

²⁶ Zhang Jun, "Naval Shanghai Garrison Created to Provide Minesweeping and Chemical Defense Support to Combat Missions (海军上海水警区成立 肩负扫雷防化支援作战任务)", *PLA Daily*, 12 July 2012, found at http://news.ifeng.com/mil/2/detail_2012_07/12/15976180_0.shtml.

Figure 1: Location of PLA Navy Fleets



As of late 2012, the Qingdao, Guangzhou, Dalian, and Fujian support bases were still in existence.²⁷ No information was found either way to indicate that the Yulin and Zhanjiang support bases had become a garrison. See Tables 6, 7, and 8 for details of these bases.

²⁷ See www.sdchangwei.com/yiyuandongtai/370.html, www.gzmz.gov.cn/business/htmlfiles/gzsmzj/qxd/201210/994118.html, www.hynews.net/2012/0907/145512.shtml, and <http://news.sina.com.cn/o/2011-03-31/082422213782.shtml>, respectively

Table 6: North Sea Fleet

Leaders and departments (Qingdao)	Fleet Aviation (舰队航空兵) (Qingdao)	Dalian Support Base (保障基地)	1 st Submarine Base (潜艇基地) (Qingdao)
<ul style="list-style-type: none"> • Commander and PC (MR deputy leader-grade) and their deputies (corps leader-grade) • Command, political, logistics and armament departments • Directly subordinate units (直属队) include Electronic Confrontation Regiment (Jiaonan of Shandong), and Telecommunications General Station (通讯总站, regiment-grade, Qingdao) • Fleet Training Base (Lushun): leaders and departments, and four training <i>dadui</i> (two in Qingdao, one in Lushun and one in Weihai) • Ship Training Center (Qingdao): leaders and departments, and training <i>dadui</i> • Submarine Testing and Sea Trial and Training Base (Dalian), with Great Wall 200 Submarine • Warship and Submarine Armament Testing and Sea Trial Base (Dalian): leaders and departments, Subsurface Armament Test Institute, 1st Test Zone (missiles), 3rd Test Zone (electronic confrontation), and 4th Test Zone (subsurface weapons) • Navy Testing and Training Base (Huludao of Liaoning) 	<ul style="list-style-type: none"> • Commander and PC (corps leader-grade) and their deputies • Command, political, logistics and armament departments • 2nd Division (Dalian): leaders and departments, 4th Regiment (Laiyang, Y8J AEWs and other Y8 variants), 5th Regiment (Qingdao, floatplanes), 6th Regiment (Dalian, H6 variants) • 5th Division (Yantai): leaders and departments, 14th Regiment (Laishan, JH7As), and 15th Regiment (Jiaozhou, J8 variants) • 6th Independent Regiment (Qingdao, ship-borne helicopters) • 2nd Air Defense Regiment (Qingdao) • 4th Radar Brigade (Qingdao) 	<ul style="list-style-type: none"> • Commander and PC (corps deputy leader-grade) and their deputies (division leader-grade) • Command, political, ship shore services departments (舰艇岸勤部), armament • Rescue and Salvage Ship <i>Dadui</i> (大队) (regiment-grade): Rescue Ships 137 and 138, Tugboat 618, salvage <i>zhongdui</i> (中队) • Service Ship <i>Dadui</i>: Service Ship 736, Inspection Ship 02, Oil Supply Ships 563, 560, 555, Water Supply Ship 572 • Ship technology support <i>dadui</i>, field fuel pipeline <i>dadui</i>, and telecommunications station • First Observation and Communications (观通) Regiment 	<ul style="list-style-type: none"> • Leaders and departments similar to Lushun NB • Nuclear submarines • Crew Teams (艇员队) <p>Submarine support facilities and capabilities such as tenders</p>

Table 7: East Sea Fleet

Leaders and Departments (Ningbo)	Fleet Aviation (Ningbo)	Fujian Support Base
<ul style="list-style-type: none"> • Same as in Table 4 • Directly subordinate units include Electronic Confrontation Regiment (Ningbo) and Telecommunications General Station (Ningbo) • Fleet Training Base (Wusong): leaders and departments, and three training <i>dadui</i> • Ship Training Center (Ningbo): leaders and departments, training <i>dadui</i> 	<ul style="list-style-type: none"> • Leaders and departments same as in Table 4 • 44th Division (Taizhou of Zhejiang): leaders and departments, 10th Regiment (Feidong of Anhui, SU30MK2s), 11th Regiment (Ningbo, KA28s), and 12th Regiment (Taizhou, J10As) • 6th Division (Dachang of Shanghai): leaders and departments, 16th Regiment (Dachang, JH7s), 17th Regiment (Changzhou, H6 variants), and 18th Regiment (Yiwu, JH7As) • 4th Independent Regiment (Ningbo, ship-borne helicopters) • Second Radar Brigade (Wenling) • 8th Air Defense Brigade 	<ul style="list-style-type: none"> • Leaders and departments same as in Table 4 • 3rd Frigate <i>Dadui</i> (Sandu'ao): Frigates 515, 516, 517, 518, 533, 534 • Service Ship <i>Dadui</i> (Ningde) • 1st Observation and Communications Brigade

Table 8: South Sea Fleet

Leaders and departments (Zhanjiang)	Fleet Aviation (Haikou)	Yulin Support Base	2 nd Submarine Base (Yalongwan)
<ul style="list-style-type: none"> • Same as in Table 4 • Directly subordinate units include Electronic Confrontation Regiment and Telecommunications General Station • Fleet Training Base (Dongguan): leaders and departments, and four training <i>dadui</i> • Ship Training Center (Zhanjiang): leaders and departments, and training <i>dadui</i> • Navy Special Operations <i>Dadui</i> (Sanya) • Hong Kong Ship <i>Dadui</i>: leaders and departments, Escort Crafts 770, 771, 772, and 773, Landing Crafts 7593, 7594, and 7595, Transport Ships 85 and 86, Tugboat 169, patrol craft <i>zhongdui</i> 	<ul style="list-style-type: none"> • Leaders and departments • 8th Division (Jialai of Hainan): leaders and departments, 22nd Regiment (Jialai, JH7As), 23rd Regiment (Guiping of Guangxi, H6 variants), 24th Regiment (Jialai, J7Bs) • 9th Division (Lingshui of Hainan): leaders and departments, 25th Regiment (Lingshui, J8 variants), and 27th Regiment (Ledong, JH7As) • 7th Independent Regiment (Sanya, ship-borne helicopters) • 7th Air Defense Brigade (Sanya) • 3rd Radar Brigade (Haikou) • Yongxindao Island Air Station 	<ul style="list-style-type: none"> • Leaders and departments • Replenishment Ship 863 • Rescue and Salvage Ship <i>Dadui</i> (Sanya): Salvage Ships 502, 503 and 519, Tugboat 154, and a diving <i>zhongdui</i> • Service Ship <i>Dadui</i> (Sanya): Water Supply Ships 960 and 964, Transport Ships 831 and 832, Service Ship 202, Oil Supply Ship 967, Medical Ship 09 • 46th Independent Shore-based Missile Battalion 	<ul style="list-style-type: none"> • Leaders and departments • Nuclear submarines • Crew teams • Submarine support facilities and capabilities

PLAN Garrisons

The PLAN also has several garrisons (水警区), which are division leader-grade organizations. Garrisons are responsible primarily for coastal patrol, coastal defense, and protecting fishing boats in their area of responsibility. Garrisons generally have only boats (艇) rather than ships (船 and 舰) assigned to them. As a result, they possess short-range, surface anti-submarine warfare (ASW), anti-ship, and minesweeping capabilities. They also have shore-based anti-ship cruise missile capabilities. For details of these garrison districts, see Tables 9, 10, and 11. As of late 2012, the PLAN had at least eight subordinate garrisons as shown below:

- North Sea Fleet: Dalian and Weihai
- East Sea Fleet: Xiamen, Shanghai, and Zhoushan
- South Sea Fleet: Shantou, Beihai, and Xisha (Paracel Islands)
 - The South Sea Fleet also has a subordinate organization called a *shoubei budui* (守备部队), which is usually also translated as “garrison,” in the Nansha (Spratly Islands). It is not clear what the grade level for this organization is, but it is most likely below that of a division.

Table 9: North Sea Fleet

Weihai Garrison	Dalian Garrison
<ul style="list-style-type: none"> • Leaders and departments similar to Qingdao Garrison • 71st Sub-chaser <i>Dadui</i>: Sub-chasers 606, 610, 619, 621, 622, 624, 625, 62782nd Sub-chaser <i>Dadui</i>: Sub-chasers 611, 612, 613, 634, 635, 705, 710, 711) • 11th Shore-Based Missile Regiment (Weihai): leaders and departments, and YJ62 battalions 	<ul style="list-style-type: none"> • Leaders and departments • 11th Minesweeper <i>Dadui</i> (Lushun): Minesweepers 811, 812, 813, Minelayer 814 • 77th Sub-chaser <i>Dadui</i> (Dalian): Sub-chasers 620, 626, 628, 632, 633, 708, 709 • 80th Sub-chaser <i>Dadui</i> (Dalian): Sub-chasers 614, 629, 630, 631, 700, 701, 706, 70712th Shore-based Missile Regiment (Dalian): leaders and departments, and missile battalions

Table 10: East Sea Fleet

Zhoushan Garrison (formerly a support base)	Shanghai Garrison (formerly a support base)	Xiamen Garrison
<ul style="list-style-type: none"> • Leaders and departments • 9th Minesweeper <i>Dadui</i> (Daishan): Minesweepers 807, 808, 833, 834 • 72nd Sub-chaser <i>Dadui</i> (Putuo): Sub-chaser 688, 693, 741, 743, 744, 761, 762, 763 • Service Ship <i>Zhongdui</i> • 13th Integrated Regiment (Dinghai): air-defense and shore-based anti-ship cruise missile battalions • Ship technology support <i>dadui</i>, ordnance technology support <i>dadui</i>, fuel technology support <i>dadui</i>, missile technology station, port management office, telecommunications station, signals station, meteorological station, materiel supplies station, ordnance repairs factory, vehicle repairs factory, navigation support repairs factory, ordnance and fuel storage depots, observation and communications battalion, vehicle battalion 	<ul style="list-style-type: none"> • Leaders and departments • 8th Frigate <i>Dadui</i> (Wusong): Frigates 511, 512, 513, 514 • 79th Sub-chaser <i>Dadui</i> (Wusong): Sub-chasers 650, 686, 687, 689, 692 • 4th Minesweeper <i>Dadui</i> (Wusong): Minesweepers 800, 801, 802, 803, 804, 805, 806, 830, 831, 832 • 21st Escort Craft <i>Dadui</i> (Hengsha): two <i>zhongdui</i> • Service and Transport Ship <i>Dadui</i> (Gaoqiao): Transport Ship 755, Oil Supply Ships 621 and 632, Tugboat 852, service ship <i>zhongdui</i> 	<ul style="list-style-type: none"> • Leaders and departments • 83rd Sub-chaser <i>Dadui</i> (Xiamen): Sub-chasers 685, 695, 696, 699, 712, 713, 742 • 29th Escort Craft <i>Dadui</i> (Pingtan): three <i>zhongdui</i>

Table 11: South Sea Fleet

Shantou Garrison	Beihai Garrison	Xisha Garrison (Changxindao Island)
<ul style="list-style-type: none"> • Leaders and departments • 2nd Frigate <i>Dadui</i> (Shantou): Frigates 560, 561, 562, 563 • 5th Missile and Escort Crafts <i>Dadui</i> (Shantou): Type 022 missile FACs, Escort Crafts 674, 677, 766, 767, 774, 775 • Shore-based missile regiment (Shantou): leaders and departments, and YJ62 battalions • Ordnance technology support <i>dadui</i> 	<ul style="list-style-type: none"> • Leaders and departments • 76th Sub-chaser <i>Dadui</i> (Xuwen): Sub-chasers 678, 720, 724, 725, 726, 730 • 81st Sub-chaser <i>Dadui</i> (Beihai): Sub-chasers 721, 722, 723, 728, 729, 732 	<ul style="list-style-type: none"> • Leaders and departments • Escort Craft <i>Zhongdui</i> • Xisha garrison unit (regiment-grade) • Nansha garrison unit (regiment-grade)

Combatant and Support *Zhidui* and Below Organizations

The mobile, operational components of the three fleets are the combatant *zhidui* (支队), which are supported by combat support vessel *zhidui* (作战支援舰支队). (See Introduction chapter Appendix A for discussion of *zhidui*, *dadui*, and *zhongdui* terminology.) These *zhidui* are differentiated by roles and missions mainly in terms of near-seas surface operations, subsurface operations, amphibious operations, and combat support. Every organization and vessel has a commander and political officer who have the same grade and are assigned one of two ranks. The PLAN's surface forces are organized into three levels of headquarters as follows:²⁸

- *Zhidui* are division-leader organizations and the commander and political commissar have the rank of senior captain or rear admiral
- *Dadui* are regiment-leader organizations and the commander and political commissar have the rank of captain or commander
- *Zhongdui* are battalion-leader organizations and the commander and political officer have the rank of lieutenant commander or commander.

Because the PLA's organizational structure does not allow for an organization at one level to be subordinate to another organization at the same level, each PLAN vessel has a lower grade than its headquarters. Table 12 shows the types of headquarters and their assigned grade. In addition, the assigned grade for each type of the PLAN's surface vessels is shown.

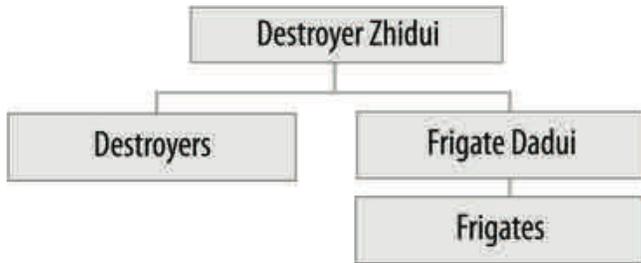
²⁸ Information in this subsection comes from *China's Navy 2007*, Chapter 6 (Surface Forces).

Table 12: Surface Force Headquarters and Vessel Grades

PLA Grades	Naval Headquarters Levels	Vessel Types and Grades
MR Leader	Navy HQ	None
MR Deputy	Fleet HQ	None
Corps Deputy	Support Base	None
Division Leader	Garrison <i>Zhidui</i>	None
Regiment Leader	<i>Dadui</i>	Destroyers
Regiment Deputy	None	Frigates and service ships
Battalion Leader	<i>Zhongdui</i>	Escort boats (3-digit hull numbers) Landing ships (3-digit hull numbers) Minesweeper ships (3-digit hull numbers) Service ships and submarine chasers
Company Leader	None	Escort boats (4-digit hull numbers) Landing craft (4-digit hull numbers) Minesweeper boats (4-digit hull numbers) Missile boats (4-digit hull numbers) Missile speedboats (4-digit hull numbers) Service ships

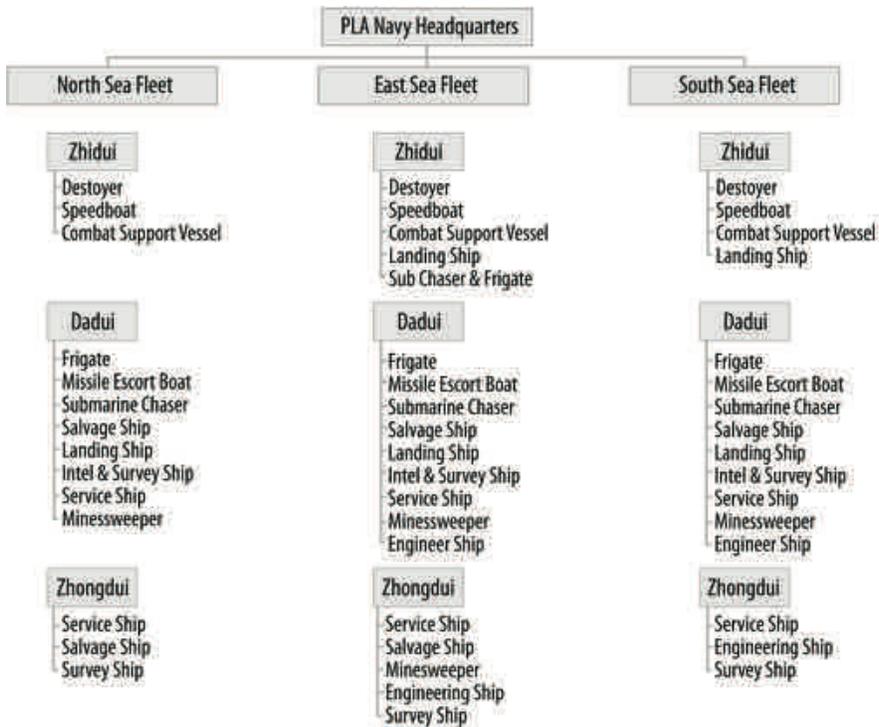
In the early 2000s, the PLAN began restructuring its surface forces' organizational structure to better meet its operational needs. Today, each fleet has a destroyer *zhidui* that is composed of subordinate destroyers and frigates. Whereas the destroyers are directly subordinate to the *zhidui*, the frigates are subordinate to a *dadui*, which is subordinate to the *zhidui*. The reason for this is that the PLAN's destroyers are considered regiment leader-grade organizations, so they cannot be subordinate to a *dadui*, which is also a regiment leader-grade organization. Therefore, they are directly subordinate to the division leader-grade *zhidui*. However, frigates, which are regiment deputy leader-grade organizations, are subordinate to a *dadui*, which is, in turn, subordinate to the destroyer *zhidui*. Table 13 shows the organizational relationship for destroyers and frigates within each fleet.

Figure 2: PLAN Destroyer Zhidui Structure



In addition, in 2004 the PLAN created a new *zhidui*-level organization identified as a Combat Support Vessel *Zhidui* (作战支援舰支队) in each fleet. Several existing vessel *dadui* were re-subordinated to the *zhidui* to provide better guidance for support for combat vessels at sea. Table 14 provides a general overview of the types of *zhidui*, *dadui*, and *zhongdui* subordinate to each fleet headquarters.

Figure 3: Types of Surface Force Zhidui, Dadui, and Zhongdui by Fleet



When vessels from the same or different *zhidui* and *dadui* are organized into task forces (编队), the task force is assigned the grade of the vessel with the highest grade, not that of the officer with the highest grade. For example, if a deputy fleet commander, who is a corps leader-grade officer, is the task force commander and is aboard a destroyer, the grade of the task force is still

that of the regiment leader-grade destroyer. For details of each fleet's *zhidui*, see Tables 13, 14, and 15.

Table 13: North Sea Fleet

1 st Destroyer Detachment (支队) (DD) (Qingdao)	10 th DD (Lushun)	2 nd Submarine Detachment (SD) (Qingdao)	12 th SD (Lushun)	1 st Fast Attack Craft Detachment (FACD) (Qingdao)	1 st Combat Support Ship Detachment (CSSD) (Qingdao)
<ul style="list-style-type: none"> • Commander and PC (division leader-grade) and their deputies • Command, political, ship shore services, and armament departments • Destroyers 106, 107, 108, 109, 112, 113, 115, 11614th • Frigate <i>Dadui</i>: Frigates 535, 536, 537 	<ul style="list-style-type: none"> • Leaders and Departments • Destroyers 105, 110, 163, 164 • Frigates 538 and 550 • 7th Frigate <i>Dadui</i> (Dalian): Frigates 519, 543, 545 	<ul style="list-style-type: none"> • Leaders and departments • Boats 274, 315, 316, 317, 335, 341, 342, 349, 352, 353, 354, 355 • Crew teams 	<ul style="list-style-type: none"> • Leaders and departments • Boats 350, 356, 357, 358, 359, 360, 361, 362, 363 • Crew teams 	<ul style="list-style-type: none"> • Leaders and departments • Missile Craft <i>Dadui</i>: Type 022 missile FACs • 4th Escort Craft <i>Dadui</i>: Escort Crafts 651, 652, 653, 654, 655, 656 • 1st Landing Craft <i>Dadui</i>: Landing Crafts 911, 912, 3111, 3113, 3115, 3116, 3117, 3128, 3129 • Engineering Ship <i>Dadui</i> (Qingdao) 	<ul style="list-style-type: none"> • Leaders and departments • Replenishment Ships 861 and 881 • Service Ship <i>Dadui</i>: Tugboat 717, Service Ship 735, Oil Supply Ships 400 and 565, Water Supply Ship 590 Rescue and Salvage Ship <i>Dadui</i>: Salvage Ship 122, Tugboats 710 and 711, Salvage Ship <i>Zhongdui</i> • Surveillance and Measurement Ship <i>Dadui</i>: Survey Ships 900 and 998, Icebreakers 721, 722 and 723, Measurement Ship 943, Buoy Tenders 982 and 983, Fishing Trawlers 425 and 427

Table 14: East Sea Fleet

3 rd DD (Zhoushan)	6 th DD (Zhoushan)	22 nd SD (Ningbo)	42 nd SD (Xiangshan of Zhejiang)	16 th FACD (Wenzhou)	21 st FACD (Ningde)	2 nd CSSD (Zhoushan)	5 th Landing Craft Detachment (LCD, Wusong)
<ul style="list-style-type: none"> • Leaders and departments • Destroyers 136, 137, 138, 139 • Frigates 525, 526, 527, 528, 529, 530 	<ul style="list-style-type: none"> • Leaders and departments • Destroyers 131, 132, 133, 134 (flagship) • Frigates 521, 522, 523, 524, 539, 540, 541, 542, 548, 549 	<ul style="list-style-type: none"> • Leaders and departments • Boats 279, 314, 320, 321, 322, 323, 324, 325 • Crew teams 	<ul style="list-style-type: none"> • Leaders and departments • Boats 364, 365, 366, 367, 368, 369 • Crew teams 	<ul style="list-style-type: none"> • Leaders and departments • Missile Craft <i>Dadui</i>: Type 022 missile FACs • 26th Escort Craft <i>Dadui</i> (Wenzhou): three <i>zhongdui</i> • 72nd Sub-chaser <i>Dadui</i> (Zhoushan): Sub-chasers 688, 693, 741, 743, 744, 761, 762, 763 • 3rd Landing Craft <i>Dadui</i> (Ningbo): Landing Crafts 941, 942, 943, 944, 3229, 3232, 3233, 3234, 3235, 3244 	<ul style="list-style-type: none"> • Leaders and departments • 31st Missile Craft <i>Dadui</i> (Fuding): Type 022 missile FACs • 3rd Escort Craft <i>Dadui</i> (Fuding): Escort Crafts 757, 758, 759, 760, 764, 765 • 78th Sub-chaser <i>Dadui</i> (Sandu'ao): Sub-chasers 680, 681, 682, 683, 740 	<ul style="list-style-type: none"> • Leaders and departments • Replenishment Ships 882, 862 and 886 • Salvage and Rescue Ship <i>Dadui</i> (Fenghua): Rescue Ships 304 and 332, Tugboat 830 • Surveillance and Measurement Ship <i>Dadui</i> (Ningbo): Measurement Ships 226, 227 and 229, Survey Ships 223 and 232 (Ship 851) • Service Ship <i>Dadui</i> (Zhoushan): Service Ships 3226, 3227, 3228, Oil Supply Ship 626 	<ul style="list-style-type: none"> • Leaders and departments • 14th <i>Dadui</i> (Wusong): Landing Crafts 927, 928, 929, 930, 931, 932, 933 • 15th <i>Dadui</i> (Wusong): Landing Crafts 905, 906, 907, 908, 909, 910, 913, 939, 940

Table 15: South Sea Fleet

Leaders and departments (Zhanjiang)	Fleet Aviation (Haikou)	Yulin Naval Base (formerly a support base)	2 nd Submarine Base (Yalongwan)
<ul style="list-style-type: none"> • Same as in Table 4 • Directly subordinate units include Electronic Confrontation Regiment and Telecommunications General Station • Fleet Training Base (Dongguan): leaders and departments, and four training <i>dadui</i> • Ship Training Center (Zhanjiang): leaders and departments, and training <i>dadui</i> • Navy Special Operations <i>Dadui</i> (Sanya) • Hong Kong Ship <i>Dadui</i>: leaders and departments, Escort Crafts 770, 771, 772, and 773, Landing Crafts 7593, 7594, and 7595, Transport Ships 85 and 86, Tugboat 169, patrol craft <i>zhongdui</i> 	<ul style="list-style-type: none"> • Leaders and departments • 8th Division (Jialai of Hainan): leaders and departments, 22nd Regiment (Jialai, JH7As), 23rd Regiment (Guiping of Guangxi, H6 variants), 24th Regiment (Jialai, J7Bs) • 9th Division (Lingshui of Hainan): leaders and departments, 25th Regiment (Lingshui, J8 variants), and 27th Regiment (Ledong, JH7As) • 7th Independent Regiment (Sanya, ship-borne helicopters) • 7th Air Defense Brigade (Sanya) • 3rd Radar Brigade (Haikou) • Yongxindao Island Air Station 	<ul style="list-style-type: none"> • Leaders and departments • Replenishment Ship 863 • Rescue and Salvage Ship <i>Dadui</i> (Sanya): Salvage Ships 502, 503 and 519, Tugboat 154, and a diving <i>zhongdui</i> • Service Ship <i>Dadui</i> (Sanya): Water Supply Ships 960 and 964, Transport Ships 831 and 832, Service Ship 202, Oil Supply Ship 967, Medical Ship 09 • 46th Independent Shore-based Missile Battalion 	<ul style="list-style-type: none"> • Leaders and departments • Nuclear submarines • Crew teams • Submarine support facilities and capabilities

The PLAN's two marine brigades are under the command of the SSF. Stationed in Zhanjiang, Guangdong Province where the SSF headquarters is located, both are division deputy leader-grade organizations, whose commander and PC are captains or senior captains. Converted from infantry units, these marine brigades are clearly intended for amphibious operations in possible armed conflicts in the South China Sea. See Table 18 for locations, types, and sizes of the PLAN marine units.

Table 16: South Sea Fleet

6 th LCD (Zhanjiang)	1 st Marine Brigade (Zhanjiang)	164 th Marine Brigade (Zhanjiang)
<ul style="list-style-type: none"> • Leaders and departments • LPDs 989, 998, 999, and LCAC 3320 • 2nd <i>Dadui</i> (Zhanjiang): Landing Crafts 934, 935, 936, 937, 990, 991 • 16th <i>Dadui</i> (Zhanjiang): Landing Crafts 992, 993, 994, 995, 996, 997 • 17th <i>Dadui</i> (Guangzhou): Landing Crafts 946, 947, 948, 949, 950 	<ul style="list-style-type: none"> • Leaders and departments • 1st, 2nd, and 3rd Marine Battalions • Armor Regiment • Missile, artillery, guard and telecommunications, engineering and chemical defense, and repairs battalions • Amphibious Reconnaissance <i>Dadui</i> (两栖侦察大队) (Suixi) 	<ul style="list-style-type: none"> • Leaders and departments • Marine, artillery, missile, guard and telecommunications, engineering and chemical defense, and repairs battalions • Armor Regiment • Amphibious Reconnaissance <i>Dadui</i> (Zhanjiang)

Finally, the PLAN’s only aircraft carrier, which was commissioned on 25 September 2012,²⁹ is a division leader-grade organization, whose commander and PC currently have the rank of senior captain but can eventually receive a rank promotion to rear admiral. Because it is a scientific research and training ship, it is likely to answer to the PLAN headquarters, but not to any of the three fleet headquarters. It is not clear, however, which specific organization within PLAN Headquarters, such as the Operations Department or Training Department.

PLAN Research and Academic Organizations

Besides the three fleets, PLAN equipment research and academic organizations are also below the headquarters-level. Even though most of them are located outside Beijing, they answer to the PLAN leadership and first-level departments in Beijing, but not to the leadership of the three fleets.

In 1983, the PLAN created the Naval Equipment Demonstration Center (NRC) in Beijing as a part of the Navy’s Equipment and Technology Department (海军装备技术部). In October 2003, it was upgraded to a corps deputy leader-grade organization and renamed the Naval Equipment Research Academy (海军装备研究院) to match the name of the PLAAF’s Equipment Research Academy and Second Artillery Equipment Research Academy, which were also created at around the same time. The Academy’s R&D work is wide ranging, covering both strategic and tactical naval issues involving ships, airplanes, missiles, underwater weapons, battle systems, electronic equipment, and command automation. Other specific research areas include:³⁰

²⁹“China’s First Aircraft Carrier Commissioned,” *Xinhua*, September 25, 2012.

³⁰ Information found in Fu Zanying, “Naval Research Center (English as in original) (海军装备论证研究中心),” in Chinese Naval Encyclopedia Editorial Committee (*Chinese Naval Encyclopedia*), Vol. 1, Beijing: Haichao Press (海潮出版社), 1998, pp. 682-683, and Guo Wei, Zhang Jianfang, and Zhan Huayun, “The ‘Light Cavalry of the Invisible Terrain’ – An Account of the Naval Equipment Demonstration Center Ship Defense Laboratory (隐身领域”轻骑兵”——记海军装备论证研究中心舰船防护研究室)” *PLA Daily* (解放军日报), 16 April 2003. See also www.people.com.cn/GB/channel1/15/20000810/181957.html,

- Ship stealth
- Air antisubmarine operations
- Electronic countermeasures
- Aircraft carriers
- Combat command automation
- Guided missile beyond-the-horizon attack

In addition, the PLAN Headquarters Department (particularly its Training Department and Military Affairs Department) and Political Department (particularly its Cadre Department) interact regularly with the PLAN's academic institutions, mainly in terms of providing guidance on training and personnel issues. These relationships, however, are “functional guidance” (“业务指导”) relationships, and should not be confused with the superior-subordinate relationship between the PLAN leadership and these organizations. For organizational information on the PLAN Equipment Research Academy and academic institutions, see Tables 19 and 20.

Table 17: Research, Cadet, and PME Institutions

	Navy Equipment Research Academy (海军装备研究院) (Beijing)	Navy Command College (海军南京指挥学院) (Nanjing)	Navy Engineering University (海军工程大学) (Wuhan)	Dalian Navy Ship Academy (大连海军舰艇学院)	Navy Submarine Academy (海军潜艇学院) (Qingdao)
Leaders and departments	Commandant and PC (corps deputy leader-grade) Command, political, scientific research (科研部), and academy affairs (院务部) departments	Commandant and PC (corps leader-grade) Training, political, scientific research, and college affairs departments	Commandant and PC (corps leader-grade) Training, political, scientific research, and university affairs departments	Commandant and PC (corps deputy leader-grade) Training, political, scientific research, and academy affairs departments	Commandant and PC (corps deputy leader-grade) Training, political, scientific research, and academy affairs departments
Major academic departments	<ul style="list-style-type: none"> • Research institutes such as comprehensive systems, ship, aviation, electronics and weapons proof studies (论证研究) institutes • Ten key research labs including computing simulation center, campaign and tactical confrontation simulation lab, ship tactical application software development lab, navy software development center, and navy reliability studies center 	<ul style="list-style-type: none"> • Navy campaign • Navy combined arms tactical command • Logistics and armament command • Information warfare studies • Political work • Foreign students training 	<ul style="list-style-type: none"> • Ships and oceanic engineering • Electrical engineering • Weapons engineering • Thermo-power engineering • Nuclear energy science and engineering • Communications engineering • Electronics engineering • Information engineering and security • Management engineering • Logistics command and engineering • Foreign students training 	<ul style="list-style-type: none"> • Basics • Armament systems and automation • Information and communications engineering • Navigation • Ship-borne weapons • Combat command • Oceanic and measurement and mapping sciences • Political work • Foreign students training 	<ul style="list-style-type: none"> • Navigation • Observation and communications • Strategic missile and subsurface weapons • Combat command • Salvage and rescue • Submarine specialized and technical NCO • Training • Foreign students training

Table 18: Research, Cadet, and PME Organizations

	Navy Aeronautical Engineering Academy (海军航空工程学院) (Yantai and Qingdao)	Marine Corps College (海军陆战学院) (Guangzhou)	Navy Aviation Academy (海军航空兵飞行学院) (Huludao)	Navy Noncommissioned Officer School (海军士官学校) (Bengbu)
Leaders and departments	Commandant and PC (corps deputy leader-grade) Training, political, scientific research, and academy affairs departments	Commandant and PC (division leader-grade) Training, political, scientific research, and college affairs departments	Commandant and PC (division leader-grade) Command, political, logistics and armament departments	Commandant and PC (division leader-grade) Training, political, and school affairs departments
Major academic departments or majors and training units	<ul style="list-style-type: none"> • Aircraft and engine engineering • Missile and engine engineering • Navigation engineering • Radar engineering • Missile launch, control and measurement engineering • Electrical engineering and automation • Mechanical engineering and automation • Systems engineering • Simulation engineering 	<ul style="list-style-type: none"> • Amphibious operations command • Aviation and ship command • Surface ship, submarine, naval aviation, marine corps, and shore-based missile force mid-grade command 	<ul style="list-style-type: none"> • Naval aviation flight, navigation, and command • Air-borne Anti-submarine sonar operations • Three flight training regiments 	<ul style="list-style-type: none"> • Basics • Navigation • Information technologies • Mechanics and electricity • Weapons
Students	Cadet; graduate studies	Pre-assignment training of company and battalion leader-grade officers	Train entry-level naval fighter, bomber, fighter-bomber, helicopter, and transport pilots and navigators, and air-borne Anti-submarine sonar operators; pre-assignment training of naval aviation officers	Pre-assignment training of mid-grade and senior NCOs

PLAN, Evolving Naval Strategy, “Jointness,” and Civil-Military Integration

PLA Naval Strategy

This subsection discusses how the PLAN as an organization has evolved with the evolution of China’s naval strategy. In the 1950s when the three PLAN fleets were established, China’s naval strategy was “near-coast defense” (“近岸防御”), a strategy intended to defend China’s territorial waters up to a dozen nautical miles from China’s coastline. Because China’s long coastline makes it difficult to establish effective control of such a long and narrow span at all times, naval defense was largely focused on particular straits and waterways of strategic importance, or those that could be exploited by the enemy to invade China by sea to conquer strategically important land targets. These include the Strait of Bohai, which is the maritime gateway to Tianjin and Beijing; the Strait of Taiwan, which relates to the security of China’s east coast, the reunification of Taiwan with the mainland, and the security of sea lanes of communications around the island; and the Strait of Qiongzhou, which is central to securing Hainan Island and China’s south coast. The deployment of the three PLAN fleets correlates well with the defense of the three straits and the adjacent waters.³¹

By mid-1980s, however, a new naval strategy of “near-seas defense” (“近海防御”), which is sometimes translated as off-shore defense, was endorsed to replace the near-coast defense strategy. In comparison, the near-seas defense strategy covers much larger sea areas and requires much more substantial naval capabilities.³² In such a strategy, for instance, the PLAN is required to develop capabilities to operate effectively, or establish local and temporary sea control and denial in the so-called three “near seas,” namely, the Yellow Sea, East China Sea, and South China Sea.

This new strategy represents a clear departure from the near-coast defense, which defines the PLAN as a coastal defense navy operating mainly in coastal waters to assist land operations. This change, however, did not require fundamental reorganization of the three fleets, because the three fleets were named after the three near seas, and as a result, they correlated well with the changing naval strategy. On the other hand, the three fleets were clearly required by the new strategy to incorporate new naval capabilities to extend the effective operational range of the PLAN from the coastal waters to the three near seas.

By the mid-2000s, the concept of “far-seas operations” (“远海作战”) was advanced, which requires the PLAN to develop capabilities to operate in the waters beyond the three near seas.³³ This new concept also coincides with new top leader Hu Jintao’s call for the PLA to fulfill New Historic Missions, which among many other things involve security of China’s newly emerging overseas interests. These interests include Chinese investment and personnel, and vital sea lanes on which shipment of goods and resource depends.

There are several reasons why the new concept of “far-seas operations” would not bring about

³¹ See Nan Li, “The Evolution of China’s Naval Strategy and Capabilities: From ‘Near Coast’ and ‘Near Seas’ to ‘Far Seas,’” *Asian Security*, Vol. 5, No. 2, 2009, p. 146.

³² *Ibid.*, p. 150.

³³ *Ibid.*, p. 160.

reorganization of PLAN's three near-seas fleets into far-seas ones in the immediate future. One has to do with the goal of China's naval modernization, which is regionally focused rather than globally oriented. China's naval strategists, for instance, divide the world's navies into three categories: the far-oceans offensive type (远洋进攻型) or global blue-water type, regional defensive and offensive type (区域防御进攻型) or regional blue-water type, and coastal defensive type (沿岸防御型). The U.S. Navy belongs to the first category, while the British, French, German, Italian, Japanese, Russian and arguably Indian Navies belong to the second category. All other navies, on the other hand, belong to the third category.³⁴

The near-term goal of China's naval modernization is for the PLAN to develop into a regional-type navy (区域型海军), or to become the second type. This type of navy can operate effectively within its own region, or for the PLAN, in the near seas. In the meantime, it also possesses the capabilities to project power *occasionally* beyond its own region and operate effectively in other oceans, as the British Navy did during the Falklands War.³⁵ Recent deployment of PLAN combat ships to the Gulf of Aden for counter-piracy missions may be regarded as another example. Such out-of-region force projection, however, are an *exception* rather than the norm.

This regional navy concept is also consistent with the 1985 strategic transition, which requires the PLA to shift its focus on preparing for "early, total and nuclear war" against a possible Soviet invasion to preparing for local, limited war to deal with territorial and interests disputes on the margins of China. When the PLAN is likely to organize task forces for occasional force projection to the far seas, these exceptional instances are unlikely to fundamentally change the current structure of the three near-seas fleets in the near future.

Moreover, China's naval strategists argue that major maritime security challenges to China are concentrated in the near seas. These challenges include reunification with Taiwan, foreign military threats and pressures, and disputes with neighboring countries about sovereignty over islands and reefs in the near seas and about jurisdiction over continental shelves and exclusive economic zones. Non-traditional security issues in the near seas include smuggling, human trafficking, transnational crimes, and maritime environmental pollution.³⁶ As a result, "at present and in a long time to come, safeguarding near-seas security should be the primary goal of China's maritime security strategy (维护近海安全应当是中国海上安全战略的主要目标)."³⁷ Also, "better near-seas security creates favorable conditions for marching to the far seas (为走向远海创造有利条件) to meet not only the need for deepening and widening the defense space against foreign threats, but also the needs to enhance the security of sea lanes and China's newly emerging overseas economic interests, to promote international cooperation, and to raise China's

³⁴ See Liu Huaqing, "Naval Strategy and Future Maritime Operations" ("海军战略与未来海上作战") (April 29, 1986), in Liu Huaqing, *Selected Military Works of Liu Huaqing, Book One* (刘华清军事文选, 上卷) (Beijing: Liberation Army Press, 2008), p. 457; Liu Huaqing, *Liu Huaqing's Memoirs* (刘华清回忆录) (Beijing: Liberation Army Press, 2004), p. 437. Liu was PLAN commander during 1982-1988.

³⁵ Ibid.

³⁶ See Senior Captain Feng Liang, Senior Captain Gao Zichuan, and Captain Duan Tingzhi, *China's Peaceful Development and Maritime Security Environment* (中国的和平发展与海上安全环境) (Beijing: World Knowledge Press, 2010), p. 300, 301. Feng, Gao and Duan are professors at China's Naval Command College in Nanjing.

³⁷ Ibid, p. 300.

international status.”³⁸ Furthermore, “marching to the far seas with clear and selective objectives (有针对性地, 有选择地走向远海) offers forceful support and coordination for resolving near-seas security issues.”³⁹ As a result, the primacy of the near-seas issues reinforces the argument for maintaining the current three near-seas fleets.

Finally, there are major vulnerabilities and limits that may impede the PLAN’s far-seas operations. China, for instance, has neither overseas naval bases nor regularized access points in the far seas of the Indian Ocean. A limited number of at-sea replenishment ships and occasional port visits for re-supply and crew rest may help in logistics support (后勤保障), but not in combat support (战斗保障) such as reloading missiles to sustain high-intensity conventional naval battles. The PLAN is also quite weak in its ASW capabilities, which leaves Chinese warships exposed to submarine attacks in the far seas. These may explain why China’s naval escort groups in the Gulf of Aden remain as small as only two combat ships supported by one large replenishment ship, and their missions are confined to dealing with low-intensity, non-traditional security issues such as piracy.

Some Chinese naval strategists argue that China should develop overseas naval bases in the Indian Ocean.⁴⁰ But this argument has not translated into any change in Chinese policy. A major reason is that China’s non-aligned, independent foreign policy forbids China to develop military alliances with other countries. This makes it difficult to establish overseas military bases because they usually are located in territories of close allies. Also, because overseas bases are associated with the legacy of colonialism and a lack of sensitivity toward national sovereignty, China may pay an image cost if it acquires any. Acquiring overseas bases may also not serve China’s national interests well because it may entangle China in regional and domestic disputes and conflicts.⁴¹ As a result, the PLAN is unlikely to launch permanent far-seas fleets until it develops overseas naval bases or regularized access points that can offer combat support, or build large number of ocean-going replenishment ships, and until it develops robust ASW capabilities.

Joint Operations

How has the PLAN as an organization adapted to the new requirement of inter-service joint operations, which aims to exploit the comparative advantages of four services and arms to achieve operational efficiency and effectiveness of the PLA as a whole? With the exception of the 14-month period after Wu Shengli became the commander in August 2006, the PLAN commander has been a CMC member since 2004 and has clearly benefited the PLAN’s participation in jointness at the highest level of the PLA. This is because the PLAN can now have direct professional and technical input into the joint PLA strategic planning through its highest commanding officer.

³⁸ Ibid.

³⁹ Ibid.

⁴⁰ Senior Captain Li Jie cited in “Military Expert: China Should Consider Establishing Land-based Support Center in East Africa” (“军事专家：中国应考虑在东非设陆上支援中心”), *China Review News Agency* (中国评论通讯社), May 21, 2009. China Review News Agency is a pro-China news agency in Hong Kong, and Li is an analyst in Naval Military Art Studies Institute in Beijing.

⁴¹ For these reasons, see Senior Colonel Huang Yingxu, “What Kind of Military Force Does Future China Need?” (“未来中国需要什么样的军事力量?”) *Study Times*, April 27, 2009. Huang is director of Academy of Military Science’s Mao Zedong Military Thought Studies Institute.

Moreover, since 2004, the PLAN has had a permanent billet as one of the Deputy Chiefs of the General Staff, which is an MR leader-grade billet. This organizational arrangement also enhances jointness, because, as discussed earlier, a major function of a staff department such as the General Staff Department (GSD) is to assist PLA leadership to make operational decisions. Furthermore, a third-level Naval Operations Bureau (海军作战局) exists in the GSD's Operations Department. This bureau clearly is intended to ensure more detailed naval input into the GSD's joint operational planning as well as to enhance inter-service coordination in joint operations.

At the MR level, since 1988, the commanders of the three fleets have served as one of the deputy commanders of the three MRs that have a maritime component, namely, the Jinan, Nanjing and Guangzhou MRs. This senior naval representation, however, is more symbolic than substantive. This is because naval officers may find it difficult to penetrate the MR headquarters structure because of Army dominance.

For instance, as part of the PLA's 200,000-man downsizing that began in late 2003, the PLAN had to reduce the number of one-star flag officers by about 60 billets. One way to accomplish this was to downgrade all eight bases from corps leader to corps deputy leader grade organizations, which also fit into the PLAN's restructuring of its combat and support organizations. As a result, the PLAN had to find new billets for some of the base leaders until they could retire in grade. To accomplish this, some of them were assigned as deputy chiefs of staff in the MRs that host the three fleets. Once they reached their mandatory retirement age, they were not replaced with naval officers.

Chapter Ten: PLA Air Force Organizational Reforms: 2000-2012

Kenneth W. Allen

To satisfy the strategic requirements of conducting both offensive and defensive operations, the modernization and transformation of the PLA Air Force follows a carefully-structured plan. The PLAAF has under it an air command in each of the seven military area commands of Shenyang, Beijing, Lanzhou, Jinan, Nanjing, Guangzhou and Chengdu. It also has under its command an airborne corps. Under each air command at military area level are aviation divisions, ground-to-air missile divisions (brigades and regiments), anti-aircraft artillery brigades (regiments), radar brigades (regiments), electronic countermeasures regiments (battalions), and other units. An aviation division has under its command aviation regiments and related stations.

China's National Defense 2010

Introduction

Over the past decade, the PLAAF has clearly begun shifting its force toward a brigade-centric structure by creating aviation, surface-to-air missile (SAM), anti-aircraft artillery (AAA), and radar brigades. It is also continuing to revise its headquarters, command and control (C2), and academic institution structure to be able to operate in combined-arms and joint operations. Given that the PLAAF's three airborne divisions were upgraded from brigades in 1993 and currently do not have enough airlift support, there is a possibility that they might also be downgraded to brigades in the near future.

The purpose of this chapter is to update information on the People's Liberation Army Air Force (PLAAF/解放军空军) from *The People's Liberation Army as Organization*, which was published in 2002.¹ That book, along with several other publications, provided a good foundation for examining the historical background of the PLAAF's organizational structure as well as the changes that have occurred over the past decade. The primary sources of information on the PLAAF's organizational structure are shown below:

- *China Air Force Dictionary* (1996)²
- *China Air Force Encyclopedia*³ (2005)
- *China's National Defense*⁴ (1998 – 2010)
- *People's Liberation Army Air Force 2010*⁵ (2011)
- *People's Liberation Army Military History*⁶ (2007)

¹ Ken Allen, "PLA Air Force Organization," in James C. Mulvenon and Andrew N.D. Yang, eds., *The People's Liberation Army as Organization*, Washington DC: RAND, 2002, Chapter 9, p. 346-457. The paper was submitted at the conference, which was held in August 2000.

² Zhu Rongchang, ed. *Air Force Dictionary* (空军大辞典), (Shanghai: Shanghai Dictionary Press, September 1996).

³ Yao Wei, ed., *China Air Force Encyclopedia* (中国空军百科全书), Beijing: Aviation Industry Press, November 2005. Henceforth identified as *Air Force Encyclopedia*.

⁴ *China's National Defense* (中国的国防) has been published biennially from 1998 through 2010 by the PRC State Council's Information Office. This publication is usually referred to as the defense white paper (白皮书).

⁵ *People's Liberation Army Air Force 2010*, Dayton, OH: National Air and Space Intelligence Agency (NASIC), August 1, 2010. Henceforth identified as *PLAAF 2010*.

- *PLA Air Force Enlisted Force Handbook*⁷ (2006)
- *PLA Air Force: Lessons Learned 1949-2002*⁸ (2003)
- *PLA Air Force Officer Handbook* (2006)⁹
- *The Organizational Structure of the PLAAF*¹⁰ (2012)
- *The Ten Pillars of the People's Liberation Army Air Force: An Assessment*¹¹ (2011)
- The Internet

Using *The People's Liberation Army as Organization* as a base, this chapter focuses on the key organizational changes that have occurred since the conference was held in 2000, some of which are discussed in greater detail in the other publications noted above. The chapter is organized into the following 14 sections:

- Section 1: PLAAF Missions, Responsibilities, and Strategy
- Section 2: Leadership
- Section 3: PLAAF Headquarters Changes
- Section 4: Branches and Specialty Units
- Section 5: The PLAAF's Force Restructuring
- Section 6: Aviation Branch
- Section 7: Surface-to-Air Missile Branch
- Section 8: Antiaircraft Artillery Branch
- Section 9: Radar Branch
- Section 10: Airborne Branch
- Section 11: Specialty Units
- Section 12: Equipment Research Academy
- Section 13: Academic Institution Reforms
- Section 14: Conclusions

Given that the focus of this chapter is on the PLAAF's organizational structure, it does not discuss the PLAAF's doctrine, weapons, and equipment, all of which are covered in other publications such as *The Chinese Air Force: Evolving Concepts, Roles, and Capabilities*.¹² In

⁶ Zhao Yiping, ed., *People's Liberation Army Military History* (中国人民解放军军史) Volume III in *China Military Encyclopedia* Second Edition (中国军事百科全书第二版), Beijing: Encyclopedia of China Publishing House, 2007.

⁷ *PLA Air Force Enlisted Force Handbook* (中国人民解放军空军士兵手册), Beijing: Blue Sky Press, November 2006. Henceforth identified as *Enlisted Force Handbook*.

⁸ Kenneth W. Allen, "PLA Air Force: Lessons Learned 1949-2002," in *The Lessons of History: The Chinese People's Liberation Army at 75*, U.S. Army War College, Carlisle, PA, September 2003. Henceforth identified as *Lessons Learned*.

⁹ *People's Liberation Army Air Force Officer's Handbook* (中国人民解放军空军军官手册) (Beijing: Blue Sky Press, November 2006). Henceforth identified as *Officer Handbook*.

¹⁰ Kenneth W. Allen, "The Organizational Structure of the PLAAF" in Richard P. Hallion, Roger Cliff, and Phillip C. Saunders, eds., *The Chinese Air Force: Evolving Concepts, Roles and Capabilities*, Washington, D.C.: National Defense University, 2012. Henceforth identified as *PLAAF Structure*. This chapter updates information in *PLAAF 2010* concerning the PLAAF's organizational structure based on new information.

¹¹ Kenneth Allen, *The Ten Pillars of the People's Liberation Army Air Force: An Assessment*, Washington DC: The Jamestown Foundation, April 2011. Henceforth identified as *PLAAF Ten Pillars*.

¹² Hallion, *The Chinese Air Force: Evolving Concepts, Roles and Capabilities*.

addition, the chapter does not provide information on the orders-of-battle for the aviation, SAM, AAA, or radar branches. The reason for this is that there are no authoritative open source materials on the orders-of-battle. For example, the 2006 to 2011 editions of the *Department of Defense's Annual Report to Congress on Military and Security Developments Involving the People's Republic of China* are not consistent concerning the number and location of the PLAAF's air divisions. The report also sometimes identifies the 13th Transport Air Division as being subordinate to PLAAF Headquarters and sometimes as being subordinate to the Guangzhou Military Region Air Force (MRAF).¹³ In addition, the PLAAF has begun to field new operational and flight college training air brigades as of December 2011. Furthermore, the DoD reports have not provided any information about the number or location of SAM and AAA brigades, nor are there any reliable websites available.

PLA Air Force Missions, Responsibilities, and Strategy

This section provides information concerning reforms in the PLA Air Force's missions and responsibilities. It also briefly discusses the PLAAF's first ever strategy that was approved in 2004.

In the mid-1990s, the PLAAF's primary air defense responsibilities were to protect China's airfields, principal political and economic centers, heavy troop concentrations, and major military facilities and transportation systems.¹⁴ As a result, most fighter airfields and virtually all of the SAMs were concentrated around China's large cities. But given the short ranges of most Chinese fighters, the lack of an appreciable aerial refueling capability, and the inability to fly at night, the PLAAF's ability to mount an effective air defense of China remained questionable. In addition, the PLAAF's bomber and attack force were limited in size with poor capabilities. The PLAAF described its secondary mission as support of the Army and Navy but emphasized that this must be indirect support only (i.e., airlift and interdiction), because it was largely incapable of providing direct fire support to the ground forces. Moreover, only a small portion of the overall force structure had the capability to deliver air-to-surface ordnance and the PLAAF did not possess any precision-guided weapons. Furthermore, coordination among the three services and joint training remained extremely limited.

During the 2000s, as a result of acquiring a vast array of new weapon systems with longer ranges, including aircraft and missiles (SAMs, air-to-air missiles, and air-to-surface missiles), that are capable of operating in all weather conditions and at night, the PLAAF has been able to expand its defensive capabilities from point defense to area defense and, in conjunction with its new strategy in 2004, to begin transitioning toward the ability to conduct simultaneous offensive and defensive operations.

¹³ Since 2006, the annual *Department of Defense's Annual Report to Congress on Military and Security Developments Involving the People's Republic of China* has included a map with the number of air division by type assigned to PLAAF Headquarters and to each Military Region Air Force. Furthermore, the MUCD for the 13th Transport Air Division (95006) indicates that it is subordinate to the Guangzhou MRAF, not the PLAAF Headquarters. An example of a blog that tries to identify PLAAF units is <http://629152194.blog.sohu.com/164942085.html>.

¹⁴ The information in this paragraph comes from Kenneth W. Allen, Glenn Krumel, and Jonathan D. Pollack, *China's Air Force Enters the 21st Century*, Santa Monica, CA: RAND, 1995, p. xiv-xv.

A summary of the PLAAF's missions and responsibilities that were published in the 2002 to 2010 versions of *China National Defense* state that the PLAAF is a strategic service and the main force for carrying out air operations.¹⁵ The PLAAF's primary missions are organizing homeland air defense to protect territorial air with an emphasis on defending the capital as the center and defending coastal and border areas as the key. The PLAAF will accomplish this by organizing air offensive operations independently or jointly with the Army, Navy, or Second Artillery Force, engaging in joint operations against enemy invasion from the air, and conducting air strikes against the enemy. To satisfy the strategic requirements of conducting both offensive and defensive operations, it is working to ensure the development of a combat force structure that focuses on air strikes, air and missile defense, and strategic projection, to improve its leadership and command system and build up an informatized, networked support system. It conducts training on confrontation in complex electromagnetic environments (CEME), and carries out maneuvers, drills, and combat training in different tactical situations. It has carried out missions other than war (MOOTW), such as air security for major national events, emergency rescue and disaster relief, international rescue, and emergency airlift.

Unfortunately, a review of available PLA sources did not find any statements concerning the role of PLAAF Headquarters and the MRAF Headquarters and their relationship to the Chinese Communist Party's Central Military Commission (CMC), four General Departments, and seven Military Regions (MRs) or theaters. Although the PLAAF most likely has a document, such as a *gangyao* (纲要), that clearly lays out these relationships, the only information found was in *China's National Defense for 2008*. That document stated that, in peacetime, the PLAAF practices a leadership system that combines operational command with administrative organizations in order to build (建设) all components of the Air Force. To accomplish this, the Air Force consists of a headquarters, seven MRAFs, corps- and division-level command posts, divisions, brigades, and regiments.¹⁶

Based on analysis of what PLAAF Headquarters and the MRAF Headquarters actually do, it appears that PLAAF Headquarters is structured to fill the same basic functions as USAF Headquarters (HAF) and deals with the MRAFs in the same basic way HAF deals with the Major Commands (MAJCOMs), such as Pacific Air Force (PACAF) Headquarters. For comparison purposes, the USAF's *Air Force Mission Directive 1*, dated April 2011, identifies the mission, command structure, and responsibilities of the Department of the Air Force Headquarters as follows:¹⁷

- **Missions:** The HAF develops policies, plans, and programs, establishes requirements, and provides resources to support the Air Force's mission to defend the United States and protect its interests through the use of air and space and cyberspace power.
- **Command:** The Secretary of the Air Force (SecAF) is the head of the Department of the Air Force and is responsible for, and has the authority necessary to conduct all affairs of the Department of the Air Force. The chain of command for purposes other than operational control of forces assigned to combatant commands runs from the Secretary of

¹⁵ The information in this paragraph is compiled from the information about the PLAAF in the PRC's seven biennial *China's National Defense* since 1998.

¹⁶ *China's National Defense 2008*.

¹⁷ Information accessed at www.af.mil/shared/media/epubs/AFMD1.pdf on 30 April 2012.

Defense (SecDef) to SecAF. All Air Force Major Commands (MAJCOMS) report to the Chief of Staff of the Air Force (CSAF). The CSAF performs his duties under the authority, direction, and control of the SecAF, presides over the Air Staff, and is the principal military advisor to the SecAF on Air Force activities. The CSAF also serves as a member of the Joint Chiefs of Staff (JCS) and the Armed Forces Policy Council.

- **Responsibilities:** SecAF is responsible for recruiting, organizing, supplying, equipping, training, servicing, mobilizing, demobilizing, administering personnel, military equipment, and facilities. CSAF is responsible for presiding over the Air Staff, transmitting Air Staff plans and recommendations to SecAF, advising the SecAF with regard to such plans and recommendations, acting as SecAF's agent in carrying out the plans or recommendations of the Air Staff, exercising supervision, consistent with the authority assigned to the combatant commanders, over such members of the Air Force as the SecAF determines.

The PLAAF's New Strategy

Although this chapter is about the PLAAF's organizational structure, it is important to note that, in 2004, the CMC approved the PLAAF's first-ever component of the PLA's Active Defense (积极防御) strategy, which is known as "Integrated Air and Space Operations, Simultaneous Offensive and Defensive Operations" (空天一体,攻防兼备).

According to *PLAAF 2010*, at the strategic level of discourse, the PLAAF today is beginning to rethink the roles and missions it must assume, and the capabilities it must have, to conduct aerospace operations that will achieve Beijing's larger national objectives. Exactly what is meant when the PLAAF is exhorted to become a "strategic air force" is still unfolding. What is clear at this point is that the PLAAF is no longer viewed as being solely a tactical adjunct to ground force operations or a service mainly concerned with territorial air defense. It is evident that the leadership of the PLA is looking to the PLAAF to be capable in the future of offensive operations in larger joint campaigns and even to "...execute long-range precision strikes and strategic projection operations"—although at the moment these latter two missions are challenging. Bureaucratically, this was a big moment for the PLAAF. The PLA Navy (PLAN) was issued its own service strategy (Offshore Active Defense) in 1986 and the PLAAF had lobbied unsuccessfully since 1987 to follow suit.

This new strategy has helped lay the doctrinal foundation for the PLAAF's organizational reforms since 2004. See Murray Scot Tanner's "The Missions of the People's Liberation Army Air Force" for detailed information on this strategy.¹⁸

Leadership

According to *PLAAF 2010*, *PLAAF Structure*, and *PLAAF Ten Pillars*, one noteworthy trend during the 2000s is the assignment of PLAAF general officers to important national-level military assignments, although not all of them are permanent PLAAF billets.¹⁹ While this phenomenon does not speak to what the PLAAF as a service is doing to enable the larger

¹⁸ Murray Scot Tanner, "The Missions of the People's Liberation Army Air Force," in Hallion, *The Chinese Air Force: Evolving Concepts, Roles and Capabilities*, Chapter 5.

¹⁹ *PLAAF 2010*, Chapter 5 (Leadership).

objectives of the greater PLA, it does speak to how the PLAAF is beginning to be viewed as an important player. The PLA has traditionally been dominated by “army green” and, to a certain extent, it still is. However, more blue uniforms (Air Force) and white uniforms (Navy) are showing up in venues that matter as the greater PLA reflects more “jointness” in the make-up of its national-level leadership relative to the past. In this regard, the air force is showing up in places of note.

PLAAF in Military Region Deputy Leader and Above Organizations

Starting in 2003, PLAAF officers began filling key military region leader-grade organizations shown below. Equally important, they continued to wear their Air Force uniform.

- **CMC Member:** Prior to 2004, only three of the PLAAF’s eight commanders—Liu Yalou, Wu Faxian, and Zhang Tingfa—had served as a member of the CMC. In September 2004, the CMC added the commander of the PLAN, PLAAF, and Second Artillery as permanent members. Since then, PLAAF commanders Qiao Qingchen, Xu Qiliang, and Ma Xiaotian have served in this billet.
- **Deputy Chief of the General Staff (DGOCS):** In July 2004, Lieutenant General Xu Qiliang was appointed as the first PLAAF officer to serve as one of the DCOGSs. When he became the PLAAF commander in September 2007, he was replaced by Lieutenant General Ma Xiaotian. Ma received his third star in 2009. Although it appeared that at least one of the DCOGS billets was designated as a permanent PLAAF billet, Ma was not replaced by a PLAAF officer when he became the PLAAF commander in November 2012, which implies that this is not the case.
- **Deputy Director of the General Political Department (GPD):** In 2005, Lieutenant General Liu Zhenqi was appointed as the first PLAAF officer to serve as a deputy director of the GPD. He received his third star in 2008. He retired in 2011 and was not replaced by a PLAAF officer.
- **Deputy Director of the General Logistics Department (GLD):** In 2005, Lieutenant General Li Maifu was appointed as the first PLAAF officer to serve as a deputy director in the GLD. He retired in 2010 and was not replaced by a PLAAF officer.
- **Deputy Director of the General Armament Department (GAD):** GAD has never had a non-Army officer serve as a deputy director.
- **Academy of Military Science (AMS):** In 2003, PLAAF Lieutenant General Zheng Shenxia became the first air force officer to be selected as head of the prestigious AMS. His successor in 2007, Lieutenant General Liu Chengjun, is also a PLAAF officer and will most likely remain in that billet until his mandatory retirement age of 65 in 2015.²⁰ Both of them received their third star.
- **National Defense University (NDU):** In August 2006, PLAAF Lieutenant General Ma Xiaotian was appointed as the first PLAAF officer to serve as Commandant of NDU. In December 2009, Lieutenant Liu Yazhou became the first PLAAF officer appointed as NDU’s political commissar (PC), where he will most likely remain until his mandatory retirement age of 65 in 2017, which will coincide with the 19th Party Congress.²¹

²⁰ Liu Chengjun’s biography can be found at <http://baike.baidu.com/view/1141118.htm>.

²¹ Liu Yazhou’s biography can be found at <http://baike.baidu.com/view/270429.htm>. Although Liu has been identified as a PLAAF officer, he shifted between Air Force and Army political officer billets throughout his career. Most importantly, however, he currently wears an Air Force uniform as the NDU PC.

- **Military Regions (MR):** Since 1988, the practice of concurrently “dual-hatting” each MRAF commander as one of the MR deputy commanders has been institutionalized.²² No PLAAF officers have ever apparently served as a director of one of the four first-level departments in an MR Headquarters. Of note, only some of the seven MRAF PCs serve as concurrent MR deputy PCs. According to the *Officer Handbook* and a search of the Internet, only the PCs for the Guangzhou, Lanzhou, Nanjing and Shenyang MRAFs are concurrently serving as MR deputy PCs. It is not clear why the Beijing, Chengdu, and Jinan MRAF PCs are not concurrent MR deputy PCs.²³

PLAAF Leadership Changes at the 18th Party Congress

The Chinese Communist Party’s (CCP’s) 18th Party Congress in November 2012 saw a major change in the PLA’s leadership. The key PLAAF leadership changes that occurred during the congress are as follows:

- General Xu Qiliang, who became the PLAAF commander in 2007, was promoted to become one of the two CMC vice chairmen and a concurrent CCP Politburo member. Xu is the first PLAAF officer to become a CMC vice chairman. In terms of protocol order, Xu is listed behind the other vice chairman, General Fan Changlong, who had never served in a CMC member-grade billet and, as such, skipped a grade to become a vice chairman. Of particular significance is that Xu is identified as an Air Force general and continues to wear an Air Force uniform.
- General Ma Xiaotian, who has served as a DCOGS since 2007 and received his third star in 2009, replaced Xu as the 11th PLAAF commander, Party deputy secretary, and CMC member. While serving as a DCOGS, Ma received his third star in 2009 and had the intelligence and foreign affairs portfolios. Ma is currently listed seventh out of eight in protocol order among the CMC members. Given his age, Ma will most likely serve as the commander only until the 19th Party Congress in 2017.
- General Tian Xiushi replaced General Deng Changyou as the PLAAF’s 12th political commissar and Party secretary. Tian, who received his third star in July 2012, never served in the Air Force and was the Chengdu MR political commissar since 2010. Tian was born in 1950 and will have to retire at age 65 in 2015.²⁴ According to *PLAAF 2010*, the PLAAF has had 11 previous PCs from 1949 until Tian was selected, and, as shown below, there is no discernible pattern in selecting them:

²² The reason why MRAF commanders were not concurrent MR deputy commanders prior to 1988 is because, from 1979 to 1988, the PLA had 18 grades instead of 15. Prior to 1988, MRAF Headquarters had the grade of bingtuan leader (正兵团), which was between the corps leader and MR deputy leader grade. In 1988, the PLA abolished the bingtuan level and upgraded all of the bingtuan leader-grade organizations, including the MRAF Headquarters, to MR deputy-leader grade organizations and downgraded all of the bingtuan deputy leader-grade organizations to corps leader. As a result, the MRAF commanders were concurrently made MR deputy commanders to match their new grade.

²³ According to the *PLAAF Officer Handbook* (p. 35), only the Guangzhou and Nanjing MRAF PCs are authorized to be concurrent MR deputy PCs; however, based on a search of the Internet in early 2012, the PCs for the Lanzhou and Shenyang MRAFs have apparently been added to the list.

²⁴ “Tian Xiushi Becomes the PLA Air Force Political Commissar and Has Real War Experience,” caixin.co, 30 October 2012, found at <http://china.caixin.com/2012-10-30/100454054.html>. His bio can be found at <http://baike.baidu.com/view/585708.htm>.

- The first eight PCs began their careers in the Army and then transferred to the PLAAF. The last three served their entire careers in the PLAAF.
- Two alternated between PLAAF and General Political Department political officer billets. The other nine PCs served only in PLAAF billets once they joined or transferred to the PLAAF.
- Only four deputy PLAAF PCs have become the PLAAF PC.
- Only one MRAF PC has become the PLAAF PC.

PLAAF Headquarters Changes

The PLA Air Force, which is often called the Central Military Commission Air Force (军委空军), does not have a specific term for headquarters. For example, the term Air Force (空军) can refer to the PLAAF as a whole or to PLAAF Headquarters. The same is the case for the term Military Region Air Force (军区空军), which can refer to the MRAF Headquarters or to the MRAF in general; however, the meaning is usually clear from the context.

This section provides information about the first- (一级) and second-level (二级) departments in PLAAF Headquarters, the reforms that have been noted in those departments since 2000, and the first-, second-, and third-level departments noted in the seven MRAF Headquarters.

Administrative and Functional Departments

As shown in Figure 2, all headquarters at the regiment level and above have four first-level (一级) administrative (行政) and functional (业务) departments (部门/机关): Headquarters, Political, Logistics, and Equipment. Every level of the PLAAF down to at least regiment level also has more than one deputy commander and deputy political commissar. Figure 2 also shows the leaders for each component for PLAAF Headquarters.

Figure 1: PLAAF Headquarters Administrative and Functional Departments



Each of these departments has second- and third-level (三级) departments. Although the generic term is “department,” this includes departments (部), bureaus (局), divisions (处), offices (科), and branches (股). The PLA is just beginning to create a Headquarters Department in a few independent battalion-level organizations, which are treated like regiments. The first-level departments are shown in Table 1 below:

Table 1: First-Level Departments

Headquarters	Headquarters Department	Political Department	Logistics Department	Equipment Department
PLAAF HQ	Department	Department	Department	Department
MRAF HQ	Department	Department	Department	Department
Corps	Department	Department	Department	Department
Division	Department	Department	Department	Department
Brigade	Department	Department	Department	Department
Regiment	Department	Division	Division	Division
Battalion	(Department)	None	None	None

PLAAF 2010 and *PLAAF Structure* provide information about each of PLAAF Headquarters' four first-level administrative and functional departments (Headquarters, Political, Logistics, and Equipment) and their second-level departments.²⁵ This information is discussed in the following subsections.

PLAAF Headquarters Grade Structure

As discussed in the book's Introduction, each organization and each officer is assigned a grade. In addition, each grade from military region leader down to company deputy leader is assigned two ranks. Table 2 provides the grade and rank structure for PLAAF Headquarters.

²⁵ *PLAAF 2010*, Chapter 2 (Organizational Structure).

Table 2: PLAAF Headquarters Grade and Rank Structure

Grade	Leaders (Ranks)	Headquarters Department (Ranks)	Political Department (Ranks)	Logistics Department (Ranks)	Equipment Department (Ranks)
CMC Member	Commander (GEN)				
MR Leader	Political Commissar (GEN/LTG)				
MR Deputy Leader	Deputy Commanders & Deputy PCs (LTG/MG)	Chief of Staff (LTG/MG)	Director (LTG/MG)		
Corps Leader		Deputy Chiefs of Staff (MG/LTG)	Deputy Directors (MG/LTG)	Director/PC (MG/LTG)	Director/PC (MG/LTG)
Corps Deputy Leader				Deputy Directors (MG/SCOL)	Deputy Directors (MG/SCOL)
Division Leader		2 nd Level Departments and Directors (SCOL/MG)			
Division Deputy Leader		2 nd Level Deputy Directors (COL/SCOL)			
Regiment Leader		3 rd Level Directors and Leaders (COL/LTC)			
Regiment Deputy Leader		3 rd Level Deputy Directors (LTC/MAJ)			

Headquarters Department

The Headquarters Department (空司/空军司令部) is the highest-level administrative and functional organization within PLAAF Headquarters that is responsible for what the PLAAF calls military (军事) or command (指挥) work on behalf of the PLAAF's Party committee and

leadership.²⁶ Its primary responsibilities include managing air force unit deployments, battlefield development, and combat command. It is also responsible for the PLAAF's organizational structure, personnel management, enlisted force personnel records, intelligence, communications, radar, air traffic control, and weather support, as well as researching air force military theory, and managing education and safety.²⁷

The leader of the PLAAF's Headquarters Department is the chief of staff (参谋长), who is the department director and has the same grade (MR deputy leader/副大军区职) as the deputy commanders. The chief of staff is responsible for organizing all "military" (军事) activity within a unit and for coordinating and executing everything within the Headquarters Department concerning the campaign decision, plan, and control, as well as guiding the relevant work by the Logistics Department and Equipment Department"²⁸ The Headquarters Department also has several deputy chiefs of staff (副参谋长).²⁹ Based on information from interviews with PLAAF personnel over a 25-year period, each deputy chief of staff is responsible for guiding and monitoring activities in two or more second-level departments.

The Headquarters Department's primary second-level departments, each of which has subordinate third-level departments, are shown below. It is not clear what the protocol order for the departments is, but the list is based on a best estimate.

- General Office (办公室)
- Directly Subordinate Work Department (直工部)
- Operations Department (作战部)
- Intelligence Department (情报部)
- Informatization Department (信息化部)
- Military Training Department (军事训练部)³⁰
- Military Affairs Department (军务部)³¹

²⁶ The PLAAF often refers to certain officers as "military officers" or "military cadre." This means that they are in the military/command track. The PLAAF traces this concept back to the early days of the Red Army, when officers were designated as either military/command cadre or political cadre in order to differentiate between them and the peasants who made up the remainder of the force.

²⁷ *PLAAF 2010*, Chapter 2 (Organizational Structure).

²⁸ Yuan Wenxian, ed., *Discussion of Headquarters Department Building* (司令部建设论), Beijing: National Defense University Press, July 2003, p. 152-153. Zhang Yuliang, *Science of Campaigns* (战役学), Beijing: NDU Press, May 2006, p. 145.

²⁹ *PLAAF 2010*, Chapter 2 (Organizational Structure).

³⁰ The Military Training Department has an Air Crew Academic Institution Division (空勤院校处).

³¹ The Military Affairs Department is responsible for the organizational structure of the PLAAF, including the table of organization and equipment (TO&E), and billet management, as well as assigning military unit cover designators (MUCDs) and aircraft bort numbers. It also serves as the personnel office for the enlisted force. In 2010, Xu Huiqing (许惠青) became the department's director. A photo of him in the 2012-2 issue of *National Defense* (*Guofang*) magazine (p. 26) as a recipient of the 2011 National Mobilization Development Award shows him with the rank of senior colonel and, based on his ribbons, the grade of division deputy leader (副师职). However, the same article and a different photo of him in an 11 January 2012 Internet article shows his grade as that of a division leader (正师职), which is most likely correct and means that the Military Affairs Department is also assigned that grade. Information accessed at www.mod.gov.cn/reports/201201/gfdy/2012-01/14/content_4337744.htm on 4 May 2012.

- Ground-Based Air Defense Troops Department (地面防空兵部)
- Electronic Countermeasures and Radar Department (电子对抗雷达部)
- Air Traffic Control Department (航空管制部)
- Military Theory Research Department (军事理论研究部)³²
- Pilot Recruitment Bureau (招飞局)³³
- Technology Bureau (技术局)³⁴
- Weather Bureau (气象局)
- Flight Safety Bureau (飞行安全局)

The PLAAF Headquarters' command post (CP) is subordinate to the Headquarters Department, with the Chief of Staff as the director. Personnel from throughout the Headquarters Department, especially the Operations Department, as well as relevant personnel from the Logistics and Equipment Departments, man the CP on a rotational basis.³⁵

Other organizations identified in the Headquarters Department are shown below, but it is not clear which organizations they are subordinate to:

- Grassroots Work Division Equipment Office (基层工作处装备科)
- Legal Consultant Division (法律顾问处)
- Retired Cadre Services Division (离休干部服务处)

PLAAF Security Committees

As discussed in the Introduction chapter, every PLA organization at the regiment and above level has a Security Committee (保密委员会), which is responsible to that level's Party Committee and the next higher level's Security Committee for oversight of classified material.³⁶ As such, PLAAF Headquarters has its own Security Committee and subordinate General Office (空军保密委员会办公室/空军保密办).³⁷ The committee also has a subordinate Technology Security Inspection Division (技术安全检查处/技检处) and Technology Security Inspection Office (技

³² This department was established around 1999. It is noted in the comments section of Cai Fengzhen and Tian Anping, *The Science of Integrated Air and Space Operations* (空天遗体作战学), Beijing, PLA Publishers, August 2006, p. 308.

³³ This bureau has subordinate selection centers in each of the seven MRAF headquarters. For example, the bureau has a Lanzhou Selection Center (兰州选拔中心).

³⁴ As early as October 2005, the Headquarters Department created a subordinate Technology Bureau as a result of the 2003-2004 downsizing by merging several units that were dispersed throughout the PLAAF. When it was created, the bureau confronted a situation where it did not have any regiment-level organizations to carry out the necessary work for the bureau staff. This bureau is responsible for unidentified units in Sichuan, Yunnan, Xinjiang, Tibet, and Guangdong.

³⁵ Interviews with PLA personnel in Beijing in November 2009.

³⁶ "Security Committee," in *PLA Military Terminology*, December 2011, p. 198. Although this dictionary translates *baomi* (保密) as security, other dictionaries translate it as secret or secrecy. See *A New English-Chinese Chinese-English Dictionary of Military Terms*, Beijing: National Defense Industry Press, October 1999, p. 254. While *baomi* security covers classified material and its transmission from one point to another, *baowei* (保卫) security covers personal and facilities security; however, the two types of organizations work closely together to security classified information.

³⁷ http://bm.songyang.gov.cn/xmal/200902/t20090228_86445.htm.

术安全检查办公室).³⁸ Besides the PLAAF Security Committee, the security organizations found for each for the four first-level departments are discussed below:

- Headquarters Department Security Committee General Office (空司保密办公室/保密室)³⁹
- Political Department Security Committee General Office (空政保密办公室/保密室) and Security Documents Office (空政保密档案室)⁴⁰
- Although no Security Committee General Office was found for the Logistics Department, one was found for the Nanjing MRAF Logistics Department (南京空后保密室), which implies that the PLAAF Headquarters Logistics Department most likely has one also⁴¹
- Equipment Department Security Committee General Office (空装保密办公室/保密室), which published a document entitled “Air Force Equipment Security Work Basic Requirements (空装保密工作基本要求).”⁴²

In addition, each MRAF Headquarters has its own Security Committee and subordinate General Office, and each command post, division, brigade, and regiment has its own Security Committee.⁴³

Headquarters Department Reforms

Concerning the Headquarters Department and its counterparts down to the regiment level, at least four significant organizational changes occurred since 2000. First, it appears that the PLAAF renamed its Communications Department (通信部) as the Informatization Department (信息化部) to correspond with the General Staff Department (GSD) renaming its Communications Department the Informatization Department in July 2011.⁴⁴ Although the GSD created a Strategic Planning Department (战略规划部) in November 2011, there are no indications that PLAAF Headquarters created a similar department.

Second, the Directly Subordinate Work Department was created in 2003 by merging two organizations within the Headquarters Department: The Political Department (政治部) and the Management Bureau (管理局), which was the logistics organization for the Headquarters

³⁸ http://news.ifeng.com/mil/gundong/detail_2010_12/31/3817321_0.shtml and <http://wenku.baidu.com/view/52c3aa0b763231126edb1115.html>.

³⁹ http://bbs.whu.edu.cn/bbsanc.php?path=%2Fgroups%2FGROUP_4%2FHistory%2F788888%2FD.979521336.A%2FM.979393853.A.

⁴⁰ <http://club.kdnet.net/dispbbs.asp?boardid=1&id=6897317> and http://blog.sina.com.cn/s/blog_63ff99370102e1u0.html.

⁴¹ www.hosane.com/productdetail.asp?auctionid=S09123&pieceCode=5573.

⁴² gfkgb.ah.gov.cn/news/vi...asp?id=278 and www.chinadmd.com/file/tzoiarpur3ewesz33etu6cpa_1.html.

⁴³ For example, information about the Beijing MRAF Security Committee's General Office was found at http://blog.sina.com.cn/s/blog_ac64c9ed010195dt.html; Information on the Fuzhou Command Post's Security Committee was found at <http://forum.home.news.cn/thread/97861055/1.html>; Information on a Guangzhou MRAF air division's Security Committee was found at www.chinamil.com.cn/big5/2009jzbzsc/2011-05/11/content_4434101.htm; and information on a Wuhan airfield station (regiment-grade organization) was found at www.yf-lp.com/cnproduct2show.asp?id=27.

⁴⁴ See www.china.com.cn/news/2011-07/01/content_22903895.htm and www.stdaily.com/kjrb/content/2011-12/20/content_402755.htm.

Department. Part of the new department's responsibilities includes managing the headquarters staff's directly subordinate organizations.

Third, as early as October 2005, the Headquarters Department created a subordinate Technology Bureau as a result of the 2003-2004 downsizing by merging several units that were dispersed throughout the PLAAF. When it was created, the bureau confronted a situation where it did not have any regiment-level organizations to carry out the necessary work for the bureau staff. This bureau is responsible for unidentified units in Sichuan, Yunnan, Xinjiang, Tibet, and Guangdong.

Finally, prior to 2003, each Headquarters Department had a separate Operations Department (作战部) and Training Department (训练部) from PLAAF Headquarters down to the brigade level and then merged them into an Operations and Training Branch (作战股) at the regiment level. As part of the 2003-2004 force reduction, however, at least some division and brigade headquarters began merging them into an Operations and Training Office (作战科), which resulted in a smaller staff with greater responsibilities.

MRAF Headquarters Department Second-Level Divisions

A review of several sources identified the following second-level divisions in MRAF Headquarters Departments listed in alphabetical order:

- Communications Division (通信处)
- Directly Subordinate Work Division (直工处/直属工作处)
- Management Division (管理处)
- Meteorology Division (气象处)
- Military Affairs Division (军务处)
- Military Training Division (军事训练处)
- Navigation Division (领航处)
- Operations Division (作战处)
- Radar Troop Division (雷达兵处)

Political Department

According to *PLAAF 2010* and *PLAAF Structure*, the Political Department (空政/空军政治部) is the highest-level leadership, functional, and administrative organization within PLAAF Headquarters for political work. The Political Department is responsible for keeping officer personnel records, propaganda, security, education, cultural activities, civil-military relations, Party discipline, and Party organizations within the PLAAF.⁴⁵

The leadership of the PLAAF's Political Department includes the director (主任) and several deputy directors (副主任). Each deputy director is responsible for guiding and monitoring activities in one or more second-level departments. The seven primary second-level departments, each of which has several subordinate third-level departments, are shown below.⁴⁶ It is not clear what the protocol order for the departments is, but the list is based on a best estimate.

⁴⁵ Yao Wei, ed., *Air Force Encyclopedia*, Vol 1, p. 217.

⁴⁶ *PLAAF 2010*, Chapter 2 (Organizational Structure).

- Headquarters Department (司令部)
- Organization Department (组织部)
- Cadre Department (干部部)⁴⁷
- Propaganda Department (宣传部)
- Security Department (保卫部)⁴⁸
- Discipline and Inspection Department (纪检部)
- Liaison Department (联络部)

PLAAF Headquarters and each MRAF Headquarters has a Procuratorate (空军军事检察院), which oversee the arrest of offenders, the prosecution process throughout the court trial, and carrying out the sentences awarded by military courts.⁴⁹ This is separate from overseeing Party-related discipline issues, which the Discipline and Inspection Department manages.

Political Department Reforms

No changes to the Political Department were noted since 2000.

MRAF Political Department Second-Level Divisions

A review of several sources identified the following second-level divisions and third-level offices in MRAF Political Departments listed in alphabetical order:⁵⁰

- Cadre Division (干部处)
 - Welfare Office (福利科)
 - Appointment and Removal Office (任免科)
 - Deployment Office (调配科)
 - Transfer to Civilian Position General Office (转业办公室)
- Discipline Inspection Division (纪检处)
- Judicial General Office (司法办公室)
- Legal Consultant Division (法律顾问处)
- Organization Division (组织处)
 - Youth Office (青年科)

⁴⁷ The Cadre Department has at least a subordinate Legal Consultant Division (法律顾问处), Welfare Division (福利处), and Veteran Cadre Division (老干处).

⁴⁸ The Security Department is responsible for the PLAAF's security police, except for key personnel guard units (警卫部队), which are directly subordinate to the Headquarters Department. Although no reference to a Security Department was found within the PLAAF Headquarters' Political Department, several references were found to Security Divisions (保卫处), Security Offices (保卫科), and Security Branches (保卫股) at lower level organizations from the MRAF Headquarters down to the regiment level, which implies there is a Security Department in PLAAF Headquarters. Since the 2003-2004 downsizing, the PLAAF has merged the Propaganda and Security branches at the regiment level so they are now called *xuanbao gu* (宣保股).

⁴⁹ Zhu Haiwen, "CPLA Air Force Military Procuratorate," and Xu Xuejun, "Air Force military procuratorial work," in Yao Wei, ed., *Air Force Encyclopedia*, Vol 1, p. 383.

⁵⁰ The information on these second- and third-level departments is based on a review of multiple articles from East View Press' *Air Force News* database for 2008 through mid-2012 and the Internet, such as an article about the PLAAF's Defense Student Program found at <http://gfszx.sdut.edu.cn/show.aspx?id=67&cid=4>.

- Propaganda Division (宣传处)
 - Propaganda Office (宣传科)
- Secretariat Division (秘书处)
- Security Division (保卫处)

Logistics Department

According to *PLAAF 2010* and *PLAAF Structure*, the Logistics Department (空后/空军后勤部) is the highest-level leadership, functional, and administrative organization within PLAAF Headquarters for logistics work, which includes overseeing transportation, finances, materials and supplies, POL, and medical care.⁵¹

The leadership of the PLAAF's Logistics Department includes the director (部长), political commissar (政委), deputy directors (副部长), deputy political commissar (副政委), chief of staff (参谋长) (i.e., director of the Headquarters Department), and director of the Political Department (政治部主任). The 12 primary second-level departments, each of which has several third-level departments, are shown below. Although each department has several subordinate divisions, only those identified are also listed below. It is not clear what the protocol order for the departments is, but the list is based on a best estimate.⁵²

- Headquarters Department (司令部)
- Political Department (政治部)
 - Veteran Cadre Services Division (老干服务处)
 - Retired Cadre Services Division (离退休干部服务处/离休干部服务处/离休干部处)
 - Propaganda and Security Division (宣保处)
- Finance Department (财务部)
 - Payroll and Insurance Division (工薪保险处)
 - Budget Division (预算处)
- Quartermaster, Materials, and POL Department (军需物资油料部)
 - Subsistence Division (给养处)
- Health Department (卫生部)
 - Medical Division (医疗处)
 - Health Division (卫生处)
 - Duty Office (值班室)
- Military Transportation Department (军交运输部)
 - Transportation Division (运输处)
- Airfield and Barracks Department (机场营房部)
 - Airfield Service Support Division (常务保障处)

⁵¹ Yao Wei, ed., *Air Force Encyclopedia*, Vol 1, p. 217.

⁵² *PLAAF 2010*, Chapter 2 (Organizational Structure). The information on these second- and third-level departments is based on a review of multiple articles from East View Press' *Air Force News* database for 2008 through mid-2012 and the Internet.

- Directly Subordinate Supply Department (直属供应部/直供部)⁵³
 - Transportation Division (军交运输处)
 - Quartermaster and POL Division (军需油料处)
 - Finance Division (财务处)
- Air Force National Defense Engineering Development Command Department (空军国防工程建设指挥部)
- Audit Bureau (审计局)
- Real Estate Management Bureau (房地产管理局/房管局)⁵⁴
 - Several Regional/City Divisions, such as the Nanjing Real Estate Management Division (南京房管处)

The Logistics Department also has an Air Force Engineering and Design Research Institute (空军工程设计研究局), which is responsible for the research and design of all PLAAF engineering and construction for airfield, barracks, and defense facilities. Up to 2000, it had constructed 23 airfields, more than 30 defense facilities, and over 1,000 barracks.⁵⁵ The PLAAF also has several Air Force Air Defense Engineering Divisions (空军空防工程处), and each MRAF has a Directly Subordinate Construction and Engineering Division (直属建筑工程处), which has several subordinate Air Force Engineering Command Headquarters (空军工程指挥部) to manage specific projects.⁵⁶

Logistics Department Reforms

One of the most significant organizational changes since 2000 began in 2003, when the Materials Department (物资部) and Fuels Department (油料部) were merged.⁵⁷ At some point later, probably January 2004, the Quartermaster Department (军需部) was also merged into it. These

⁵³ Since the 2003-2004 downsizing went into effect, the Directly Subordinate Supply Department's support missions expanded along with the number of people.

⁵⁴ The PLAAF's Real Estate Management Bureau was formally created in 2004. It had its origin in 1985 as part of the 1 million person force reduction. In 1986, the GSD approved its creation to manage military housing and property. It has changed several times but was always outside the formal organizational structure and was managed by civil service personnel. When it was formally established in 2004, it switched to management by military officers. Its management system now has a 3-tiered structure: bureau (局), divisions (处), and local offices (地区办事处). The bureau's primary mission is to receive the PLAAF's real estate assets that had been empty and to oversee their maintenance so they can be used by units for multiple purposes, including storage of supplies during peacetime and wartime.

⁵⁵ Tian Jun, "Air Force Engineering Design Institute (空军工程设计研究局), in Yao Wei, ed., *Air Force Encyclopedia*, Vol 2, p.1254. Zhu Rongchang, ed. *Air Force Dictionary*, p. 777.

⁵⁶ Liu Zhixiong, "Air Force Engineering Division," in Yao Wei, ed., *Air Force Encyclopedia*, Vol 1, p. 242. The engineering divisions are responsible for air force national defense engineering projects and repairs. This appears to be a regiment-level organization. Each of the seven MRAF Logistics Departments also has a Directly Subordinate Construction and Engineering Division (直属建筑工程处) that is responsible for projects in their MRAF. The Air Force Engineering Design Institute assumed its current name in 1986 at the same time the Air Force Engineering Divisions were formed by combining engineering zongdui and regiments. For an example of an Engineering Headquarters in Jilin that is subordinate to the Shenyang MRAF's Directly Subordinate Construction and Engineering Division (沈阳军区空军直属建筑工程处吉林工程指挥部) see http://company.ch.gongchang.com/info/64852260_dd95/.

⁵⁷ The information in this paragraph comes from analysis of multiple articles in *Air Force News*, East View Press' *PLA Daily* database, and the Internet.

changes corresponded with the phased merging of the same three departments in the GLD. However, the three components are separated into individual offices (科) and branches (股) at the division/brigade, and regiment levels, respectively. For example, each regiment has a Quartermaster Branch (军需股), Materials Branch (物资股), and Fuels Branch (油料股).

Prior to the creation of the General Armament Department in 1998, the PLAAF's Logistics Department was responsible for maintenance of all non-aviation weapons and equipment, including SAMs, AAA, radar systems, and vehicles. Although the PLAAF Equipment Department took over the responsibility in 1998 for birth-to-death of the PLAAF's weapons and equipment, including SAMs, AAA, and radar systems, the Logistics Department's Transportation Department retained that responsibility for all transportation vehicles.⁵⁸

MRAF Logistics Department Second-Level Divisions

A review of several sources identified the following second-level divisions and third-level offices in MRAF Logistics Departments listed in alphabetical order.⁵⁹

- Airfield and Barracks Division (机场营房处/机营处)
- Air Defense Engineering Division (空防工程处)
- Air Materiel Depot Functional Division (航材仓库业务处)
- Combat Services Plans Division (战勤计划处)
- Finance Division (财务处)
- Health Division (卫生处)
- Quartermaster, Materials, and POL Division (军需物资油料处)
 - Bedding, Clothing, and Accoutrements Office (被装科)
- Transportation Division (军事交通运输处/军交运输处/运输处)

Equipment Department

When the PLAAF was founded in November 1949, it created an Air Force Engineering Department (空军工程部) to manage aircraft maintenance; however, in September 1969, it was abolished, leaving the PLAAF with only three first-level departments. Because of significant aircraft maintenance problems during the Cultural Revolution, the PLAAF created the Aeronautical Engineering Department (空军航空工程部) in May 1976 as the fourth first-level department with the responsibility of managing aircraft maintenance and providing representatives at aviation-related factories. In 1992, the name was changed to the Air Force Equipment Technical Department (空军装备技术部), but it still had the same responsibilities.⁶⁰

⁵⁸ The information in this paragraph is based on a review of *Air Force News* articles, the Internet, and interviews with PLA personnel over the past decade.

⁵⁹ The information in this paragraph comes from analysis of multiple articles in *Air Force News*, East View Press' *PLA Daily* database, and the Internet.

⁶⁰ Kenneth Allen, *People's Republic of China People's Liberation Army Air Force*, Washington, Defense Intelligence Agency, DIC-1300-445-91, May 1991, Section 8, p. 8-1. "Air Force Aviation Engineering Department," *Air Force Dictionary*, 146. *World Military Yearbook 1993-1994* (世界军事年鉴), Beijing, PLA Press, June 1994, 81. Prior to 1998, the Logistics Department was responsible for maintenance for all non-aviation equipment and weapon systems. With the exception of vehicle maintenance, which remained under the Logistics Department, the Equipment Department took responsibility for maintenance for all equipment and weapon systems in 1998.

At the same time the CMC created the General Armament Department in 1998, the PLAAF changed the name to the Equipment Department (空装/空军装备部). At that time, the second-level Equipment Department (装备部) and Scientific Research Department (科研部) from the Headquarters Department, along with the second-level Ordnance Department (军械部) from the Logistics Department were merged into the new Equipment Department.

The Equipment Department is the highest-level leadership, functional, and administrative organization within PLAAF Headquarters for equipment work, which includes the birth-to-death life-cycle management, repair, and maintenance of all PLAAF weapon systems and equipment except for transportation vehicles.⁶¹

The leadership of the PLAAF's Equipment Department includes the director (部长), political commissar (PC), at least five deputy directors (副部长), one deputy PC, and the director of the Political Department (政治部主任).

The eight primary second-level departments, each of which has several third-level departments, are shown below. The subordinate divisions identified are also shown below. It is not clear what the protocol order for the departments is, but the list is based on a best estimate.⁶²

- Comprehensive Planning Department (综合计划部), which also serves the function of a Headquarters Department
 - Comprehensive Division (综合处)
 - Training Division (训练处)
 - Equipment Management and Repair Division (装备管理维修处)
- Political Department (政治部)
- Field Maintenance Department (外场部)⁶³
 - Organization and Planning Division (组织计划处)
- Scientific Research and Procurement Department (科研订货部)⁶⁴
- Air Materiel Department (航材部)⁶⁵
- Aviation Engineering Management Department (航空工程管理部)⁶⁶
 - Personnel and Labor Division (人事劳动处)
- Ordnance General-Use Equipment Department (军械通用装备部)
 - Air Force Ordnance General-Use Equipment Military Representative Bureau (空军军械通用装备军事代表局)

⁶¹ Yao Wei, ed., *Air Force Encyclopedia*, Vol 1, p. 218.

⁶² The information in this paragraph comes from analysis of multiple articles in *Air Force News*, East View Press' *PLA Daily* database, and the Internet.

⁶³ The Field Maintenance Department is responsible for all first- and second-level maintenance at the aviation division and regiment level. This department also has directly subordinate repair and spare-part factories for second-level maintenance in each Military Region.

⁶⁴ Somewhere between 2003 and 2005, the PLAAF merged the Scientific Research Department (科研部) and the Equipment Procurement Department (装备订货部) into a single department.

⁶⁵ This department was previously under the Logistics Department.

⁶⁶ In this instance, given the historical context of the term, *gongcheng* (engineering) most likely refers to aircraft maintenance.

- Major Type/Model Department (重点型号部).

Equipment Department Reforms

The most significant changes to the Equipment Department since 2000 were the creation of the Ordnance General-Use Equipment Department and its subordinate Air Force Ordnance General-Use Equipment Military Representative Bureau, which first appeared in late 2004 and early 2005, respectively.⁶⁷

Only a few items for the department were found online, the latest of which appeared in late 2011. The department has a director (部长), whose rank is major general, deputy directors (副部长), and a Ground-based Weapons Division (地面武器处).⁶⁸ It is not clear what grade is assigned to the department or bureau.

The bureau has a director (局长) and a subordinate Political Department, a Cooperation Office (协办), and a Management Division (管理处). The Military Representative Bureau is responsible for guiding all of the PLAAF's military representatives assigned to regional bureaus and offices and to individual non-military research institutes and factories to monitor the development and production of PLAAF systems. It is roughly equivalent to the USAF's Air Force Plant Representative Office (AFPRO) system, except that the PLAAF's military representatives spend most, if not all, of their career in the same office, while the USAF's representatives rotate every two to three years.

Although the PLAAF created its first military representative offices in factories in 1950, it did not begin creating regional bureaus (地区军事代表局) until 1994. The PLAAF currently has a three-tiered military representative structure: Headquarters Air Force, regional bureaus and offices, and factory/research institute representative offices.⁶⁹

Although not identified in *PLAAF 2010*, the Equipment Department apparently created a new subordinate department in 2010. The Chinese name is *Zhongdian Xinghao Bu* (重点型号部). The China National Knowledge Infrastructure (CNKI) database has only one article by anyone from the department, which was written in 2011. CNKI identified the English name as the Major Type Department, but that does not necessarily mean it is the correct name. Internet articles about the new department imply a close link between it and the Equipment Department's Ordnance General-Use Equipment Department and the Air Force Equipment Research Academy's General Demonstration Research Institute (装备总体论证研究所), which indicates it focuses on the research and development aspects of new aircraft and engines. The department has a subordinate Test Flight and Navigation Office (试飞试航室) in Beijing, which was

⁶⁷ The first article in CNKI written by anyone from the Armament General-Use Equipment Department was published in November 2004, and the first time it appeared in *Air Force News* was 29 January 2005, p. 3. There are still articles the Internet referring to this department. The first time the Air Force Armament General-Use Equipment Military Representative Bureau appeared in *Air Force News* was 24 February 2005, p. 2.

⁶⁸ Information accessed at www.zgjyzb.cn/news_show.asp?id=18 and www.chinahvacr.com/News/Class9/201007/News_3036299.shtml on 1 April 2012.

⁶⁹ Niu Keli, "Air Force Bureaus of Military Representatives," in Yao Wei, ed., *Air Force Encyclopedia*, Vol 1, p. 245.

involved in writing an article on turbofan engines.⁷⁰ A search of the Internet found that the term major type (重点信号) was first noted in an article about Beijing University of Aeronautics and Astronautics (BUAA) concerning unmanned aerial vehicles (UAVs).⁷¹ All other Internet articles that include this term concern appeared after 2005 and focus on aircraft, aircraft engines, and UAVs, which implies it is specific to these systems and the PLAAF created a new department to deal with them.

MRAF Equipment Department Second-Level Divisions

A review of several sources identified the following second-level divisions and third-level offices in MRAF Equipment Departments listed in alphabetical order:

- Air Materiel Division (航材处)
 - Equipment Command Center (装备指挥中心)
- Comprehensive Planning Division (综合计划处)
- Equipment Division (装备处)
- Field Maintenance Division (外场处)
- Ordnance Division (军械处)
- Ordnance General-Use Equipment Division (军械通用装备处)

Branches and Specialty Units

The PLAAF, which is one of three PLA services (军种), consists of the following five branches/arms (兵种) and five specialty units and subunits (专业部(分)队), which are listed in protocol order.⁷² The PLA defines units as organizations at the corps, division, brigade, and regiment levels. For example, air divisions, brigades, and regiments, SAM brigades and regiments, and communications regiments are considered units. The PLA defines subunits (分队), which are sometimes translated as elements or detachments, as organizations at the battalion, company, and platoon level. Some definitions include squads as subunits. Subunits can be either permanent, or they can be ad hoc organizations, such as communications, radar, vehicle,

⁷⁰ Information about the new department was accessed at www.chinahvacr.com/News/Class9/201007/News_3036299.shtml, www.zhqsdz.com.cn/NewsView.asp?ID=102, www.cannews.com.cn/zghkb/html/2010-08/03/content_8801.htm, and www.ztmw.com/index/news/news_detail.aspx?id=936 on 4 May 2012. The CNKI article was accessed at www.cnki.net/kcms/detail/detail.aspx?filename=HKFJ201104015&dbcode=CJFQ&dbname=CJFD2011 on 6 May 2012.

⁷¹ Information accessed at www.nen.com.cn/72351167937511424/20060309/1866255_1.shtml on 4 May 2012.

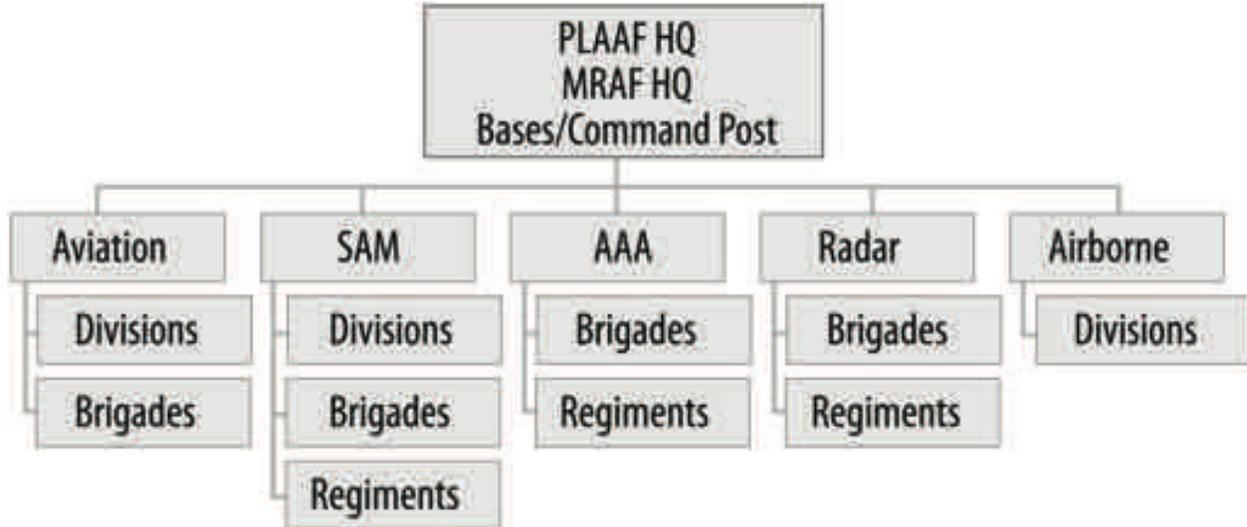
⁷² The three services are Army, Navy, and Air Force. Second Artillery is an independent branch, not a service. Since 1985, the *World Military Yearbook* (世界军事年鉴), which is published annually or biennially by *PLA Press* (解放军出版社), has listed the five branches in order as aviation, SAM, AAA, radar, and airborne. Until 2007, they did not identify the specialized units and subunits. Beginning with the 2007 edition, the yearbook has added the five specialty units and subunits in the order of communications, radar, ECM, chemical defense, and technical reconnaissance. As for the biennial *China's National Defense*, only the 2002 and 2008 editions identify the branches. The 2002 edition confused the issue by identifying only four branches (aviation, SAM, AAA, and airborne) and listed the five specialty units and subunits as communications, radar, ECM, chemical defense, and special technical. The 2008 edition listed eight branches in the following order: aviation, air defense (SAM and AAA), airborne, communications, radar, ECM, technical reconnaissance, and chemical defense. It did not mention specialty units and subunits. Meanwhile, the Ministry of National Defense's website states that the PLAAF has five branches (aviation, SAM, AAA, radar, and airborne) and other specialized units and subunits.

maintenance, or launch/firing subunits. Subunits are also identified as the “grassroots” (基层) level. Each of the branches and specialty units will be discussed in subsequent sections.

- Five Branches
 - Aviation (航空兵)
 - Surface-to-air missiles (SAM/地空导弹兵)
 - Antiaircraft artillery (AAA/高射炮兵)
 - Radar (雷达)
 - Airborne (空降兵)
- Five Specialty Units
 - Communications (通信), which was previously a branch
 - Radar (雷达), which is also a branch
 - Electronic countermeasures (电子对抗)
 - Chemical defense (防化)
 - Technical reconnaissance (技术侦察).

Although the PLAAF has added new weapons and equipment throughout the force over the past decade, the only significant changes to the organizational structure identified have occurred in the aviation branch. Figure 1 shows the basic organizational structure of the five branches and the different types of highest-level unit headquarters down to the regiment level. Each type of headquarters is either directly subordinate to a command post (corps deputy leader grade or division leader grade), MRAF Headquarters (military region deputy leader grade), or PLAAF Headquarters (military region leader grade). Each type of headquarters has subordinate units or subunits.

Figure 2: PLAAF Branches and Subordinate Units



In the PLAAF, divisions, brigades, and regiments can each serve as the highest level headquarters below the PLAAF Headquarters, MRAF headquarters, base, or command post levels. Divisions can have subordinate regiments, battalions (flight groups), and/or companies (flight squadrons). Brigades, which are never subordinate to a division and do not have subordinate regiments, can have subordinate battalions and/or companies. Whereas air divisions have subordinate regiments, flight groups (battalion), and flight squadrons (company), air brigades only have subordinate flight groups and squadrons. Meanwhile, the SAM branch can have division, brigade, or regiment headquarters with subordinate battalions and/or companies, and the AAA branch can have brigade or regiment headquarters with subordinate battalions and/or companies. The 15th Airborne Corps is organized into three airborne divisions with subordinate regiments, battalions, and companies.

The PLAAF's Force Restructuring

According to *China's National Defense in 2004*, the PLA conducted a force reduction of 200,000 personnel beginning in late 2003. Of this total, 85 percent were officers. The primary purpose was to “reduce the number, aim at optimal force structures, and create smoother internal relations and better quality” The focus of these reforms was to:⁷³

- Rebalance the ratio between officers and enlisted personnel
- Improve the system of leadership and command
- Optimize the composition of the services and branches
- Deepen the reform of joint logistics support
- Realign the organizational structure of military academic institutions.

⁷³ *China's National Defense 2004*. One must make a distinction between air defense forces, which include SAM and AAA, and air defense missions which include SAM, AAA, and aviation units. In some cases, the radar branch is included as an air defense force.

PLAAF C2 Reforms in 2003-2004 and 2012

According to *PLAAF 2010* and *PLAAF Structure*, historically, the PLAAF has had a five-tiered vertical command structure for its aviation and air defense (SAM and AAA) troops, but it reduced the number of tiers to four beginning in late 2003.⁷⁴ The change occurred when the PLAAF abolished the air corps (空军军) level, created several corps deputy leader-grade (副军职) and division leader-grade (正师职) command posts (CPs/指挥所), and consolidated the operational chain of command for aviation and air defense troops under the seven MRAF Headquarters. In conjunction with establishing new air brigades, which began in late 2011, the PLAAF has begun creating four bases (基地) as corps deputy leader-grade organizations from existing CPs. A comparison of the three periods is shown in Table 3.

Table 3: Aviation and Air Defense Command Structure

Pre-2003	2004-2011	2012-Current
PLAAF HQ	PLAAF HQ	PLAAF HQ
MRAF HQ	MRAF HQ	MRAF HQ
Air Corps and bases	Command Posts	Bases and Command Posts
Units	Units	Units
Subunits	Subunits	Subunits

According to *PLAAF Structure*, the last two tiers consist of units (部队) and subunits (分队). *PLAAF Structure* notes that, prior to the 2003-2004 force reduction, the PLAAF had 11 corps leader-grade (正军职) organizations, including the 15th Airborne Corps plus five air corps and five bases. Excluding the 15th Airborne Corps, the other air corps and bases were subordinate to their respective MRAF headquarters and were responsible for directly commanding the PLAAF combat units (aviation, air defense, radar, etc.) in their area of responsibility (AOR). The PLAAF also had two division-level CPs that served the same function.

PLAAF Structure states that, from 2003 to 2012, the only corps leader-grade combat organization was the 15th Airborne Corps, which is directly subordinate to PLAAF Headquarters and has three subordinate airborne divisions in the Guangzhou and Jinan MRAFs. As a result of the 2003 force restructuring, the PLAAF reduced the grade of the remaining air corps and corps-level bases to either corps deputy leader- or division leader-grade organizations, re-designated them as CPs, and consolidated leadership for all aviation and air defense organizations in each MRAF directly under the respective MRAF headquarters. Of note, every billet in the previous air corps and bases were downgraded accordingly to match the Table of Organization (编制) for the corps deputy leader- and division leader-grade CPs. In addition, while the Headquarters Department and Political Department remained, their Logistics Department and Equipment Department were abolished and those responsibilities were move up to the MRAF Headquarters. From 2004 to 2012, the PLAAF had 13 CPs, which acted on behalf of the MRAF Headquarters to command the organizations in their AOR. Based on the available information, Table 4 shows the 13 CPs and their identified grade:

⁷⁴ *PLAAF 2010*, Chapter 2 (Organizational Structure).

Table 4: PLAAF Command Posts as of 2004

MRAF	Corps Deputy Leader CPs	Division Leader CPs
Beijing	Datong	None
Chengdu	Kunming	Lhasa
Guangzhou	Wuhan	Nanning
Jinan	None	None
Lanzhou	Wulumuqi, Xi'an	Hetian
Nanjing	Fuzhou	Shanghai, Zhangzhou
Shenyang	Dalian	Changchun

According to *PLAAF 2010*, although downgrading all of the air corps-level organizations was intended to simplify the command structure, it actually complicated the situation.⁷⁵ The primary reason is that the PLA's organizational structure, in general, does not allow for an organization of one grade to be subordinate to another organization of the same grade. In other words, an air or SAM division can be subordinate to a corps deputy leader-grade CP but not to a division-grade CP. To help solve this dilemma, PLAAF writings state that each MRAF now commands all operational organizations in its AOR, and that each command post acts on behalf of the MRAF to command combat organizations in its AOR. Furthermore, a second problem arose concerning coordination between the command posts and the ground forces. Whereas the air corps and group armies could work as equals to plan, organize, and implement joint training, the command posts no longer have the same equal relationship.

PLAAF Creates New Bases in 2012

In January 2012, the PLAAF began creating four corps deputy leader-grade bases from existing command posts in Nanning, Urumqi, Shanghai, and Dalian. Each base is responsible for C2 of the air brigades, SAM, AAA, and radar units in their AOR. They also coordinate with Army and Navy units in their AOR for joint training.

Aviation Branch

According to *PLAAF 2010*, the PLAAF has 29 air divisions (航空兵师).⁷⁶ It also has several independent transport regiments that are not subordinate to an air division. An air division consists of a command staff, four administrative and functional departments, and two types of regiment-level subordinate units: air regiments (航空兵团) and field stations (场站). The air division headquarters is considered a tenant unit at an airfield.

Depending on its location and mission, an air division can be directly subordinate to PLAAF Headquarters or an MRAF Headquarters. As noted above, since the 2003-2004 force reduction, under certain circumstances, an air division can be subordinate to a command post.

The command staff of an air division consists of a commander (师长), a political commissar (政委), at least two deputy commanders, and at least one deputy political commissar. The

⁷⁵ *PLAAF 2010*, Chapter 2 (Organizational Structure).

⁷⁶ *PLAAF 2010*, Chapter 8 (Aviation Branch)

administrative and functional departments consist of a Headquarters Department headed by a chief of staff, a Political Department headed by a director, and a Logistics Department and Equipment Department, each of which have a director and a political commissar. Each department has several subordinate offices that equate to those in the PLAAF and MRAF Headquarters.

Most of the air divisions today have two to three subordinate air regiments (航空兵团), each of which is usually located at a separate airfield. Depending on the type of aircraft, each regiment has 18 to 24 aircraft that are organized into two to three subordinate flight groups (飞行大队), which are battalion leader-grade organizations. Each flight group, in turn, is divided into two to three flight squadrons (飞行中队), which are company leader-grade organizations. Each flight group has an average of eight to ten aircraft, and each flight squadron has an average of two to four aircraft.

Each air regiment also has a subordinate battalion-level maintenance group (机务大队), which, in turn, has subordinate company-level maintenance squadrons (机务中队), which are identified as the 1st, 2nd, and 3rd maintenance squadrons and the periodic inspection squadron. Each squadron, in turn, has several subordinate platoon-level flights (分队), including radar, machinery, armament, special equipment, radio, and fire control system flights. Each flight has a commander.

Each maintenance group also has a subordinate company-level aircraft repair shop (修理厂), or backshop, for local repairs. The repair shop, in turn, has several subordinate platoon-level flights (分队) that work with their corresponding squadrons in a maintenance group. Each flight is organized into several squad-level sections (组).

A field station is an independent regiment-level logistics support unit subordinate to the air division. Some field stations can also be directly subordinate to an MRAF Headquarters. The commander (站长) serves as the airbase commander with responsibility for all facilities and operations. He also organizes the supply of materials and equipment to each tenant air regiment and provides logistics support for flight operations and training.

Aviation Branch Reforms

In 2004, the PLAAF created the 4th Transport Air Division in Qionglai, Sichuan Province, Chengdu MRAF and assigned the first female commander, Colonel Cheng Xiaojian (程晓健). The division consists of three transport regiments equipped with Y-5s, Y-7s, and helicopters.⁷⁷ In 2005, the 15th Airborne Corps began creating subordinate battalion-level helicopter *dadui* to its airborne divisions.⁷⁸

In December 2011, the PLAAF revealed that it had begun creating air brigades (航空兵旅) in at least the Guangzhou, Lanzhou, Nanjing, and Shenyang MRAFs by upgrading existing air regiments. Each brigade has from three to five subordinate battalion-level leader-grade flight

⁷⁷ Information accessed at http://chn.chinamil.com.cn/zt/2010jzjg/node_42768.htm on 1 April 2012.

⁷⁸ Various articles from *Air Force News* during 2005.

groups, which, in turn, have subordinate company-level flight squadrons. The goal is to have each flight group equipped with a different type of aircraft, including trainers, ground attack, and fighters, such that the brigade is multifunctional.⁷⁹

Beginning in 2012, the PLAAF has also merged six of its seven division leader-grade flight colleges (1st, 2nd, 3rd, 4th, 5th, and 6th) into three corps deputy leader-grade flight colleges. The details are discussed in Section 13.

Table 5 shows the number and location of operational and training air brigades that have been identified by MRAF.

Table 5: PLAAF Air Brigades

MRAF	Operational Brigades	Flight College Brigades
Beijing	0	1
Guangzhou	2	N/A
Lanzhou	2	2
Nanjing	2	N/A
Shenyang	2	2

Some reporting also indicates that the PLAAF has merged at least some, if not all, of its seven MRAF transition training bases (改装训练基地) that were created in 1986 into the new operational and training air brigades, such that newly graduated flight cadets are assigned directly to a training flight group in their new unit for transition training.⁸⁰

Shifting Commanders from the Tower to the Command Post

Based on information from various PLAAF sources, including *China Air Force* (中国空军) magazine and *Air Force News* (空军报) besides adjusting the force structure discussed in this section, the most significant reform has been to begin providing pilots in all air units (divisions, brigades, regiments, and flight groups and squadrons) with the “autonomy” to create their own flight plans, taxi out and take off without strict guidance, to conduct “free air combat” while implementing the flight plan, and then land without strict guidance from a senior officer in the tower. The PLAAF has identified this overall control as the “nanny model.”⁸¹

In order for pilots to implement their new autonomy, the PLAAF began planning for reforms in 2008 to move the flight commanders (飞行指挥员) from the control tower down to the command post in the bottom of the tower and replace them with ground officers identified as

⁷⁹ Accessed at www.china.com.cn/military/txt/2012-02/01/content_24523647.htm and <http://club.mil.news.sohu.com/newclub/show.php?forumid=shilin&threadid=4114990> on 25 March 2012.

⁸⁰ Information accessed at <http://paper.wenweipo.com/2012/01/21/PL1201210004.htm> and <http://paper.wenweipo.com/2011/12/31/PL1112310005.htm> on 25 March 2012.

⁸¹ Zhang Li and Cao Chuanbiao “Changes in an Aviation Division’s Training Model to Enhance Training Effectiveness,” PLA Daily online, 18 March 2012. Li Tianxia, Jia Yanbin, and Huang Chun, “Transitioning from the Tower Begins,” *China Air Force*, 2012/04, p. 26-28.

flight adjusters (飞行调配员). The first group of flight adjusters was selected from grounded pilots and navigators, but the PLAAF is now beginning to train cadets to assume these positions. Each control tower also has a flight support room manned by logistics and maintenance personnel.

In addition to selecting officers who are already at an airfield, the PLAAF has begun a new program to educate and train cadets to eventually become flight adjusters. The April 2012 issue of *China Air Force* magazine has a three-page article on a new program to train cadets to become flight adjusters.⁸² According to the article, the first class of 30 flight adjusters in the Air Force Engineering University's (AFEU) Air Force Air Traffic Control Department (空军航管系) began on 15 February 2012.

Under the new reforms, which were implemented in 2012, the number of officers in the top of the control tower has been reduced from about 13 to five, and the number of officers in the command post has been increased accordingly. The new flight adjusters serve as air traffic controllers for skills training (e.g., takeoffs, navigation, and landings) out to between 30 and 50 kilometers from the airfield, and the flight commanders, who now reside in the command post, command and control tactics training in the unit's training and operational airspace. When the air unit conducts "red" and "blue" opposition-force training, each group has its own flight commander in the command post. Unlike previous training, where the two groups coordinated their tactics prior to taking off, the two groups do not exchange information ahead of time so as to train in a more realistic operational environment. The flight commanders apparently coordinate with the pilots once they are airborne through the use of data links, but little information is available about how this is accomplished. In some cases, pilots have also conducted training under complete radio silence.

Surface-to-Air Missile Branch

It is not clear how many SAM units, especially long-range SAMs, the PLAAF has, but the number is apparently growing and the units are being deployed in more MRAFs. Although the annual DoD report on the PLA provides numbers of air divisions, it does not provide numbers of SAM units. For example, the 2011 report states, "The PLA Air Force has continued expanding its inventory of long-range, advanced SAM systems and now possesses one of the largest such forces in the world."⁸³ Furthermore, no credible Internet source provides information on the number or true unit designators for the PLAAF's SAM units.

According to *PLAAF 2010*, the PLAAF's SAM branch was created in October 1958, when China received its first SA-2 missiles (5 launchers and 62 missiles) from the Soviet Union. At the same time, the Air Force established its missile school at Sanyuan, Shaanxi Province, and the first SAM battalion near Beijing. The first units borrowed people from the AAA, radar, aviation maintenance, and spotlight troops. For security purposes, the SAM department in the PLAAF Headquarters was called the Technical Department until 1966, when it was combined with the AAA Department and remains there today.

⁸² Li Tianxia, Jia Yanbin, and Huang Chun, "Transitioning from the Tower Begins," *China Air Force*, 2012/04, p. 26-28.

⁸³ Office of the Secretary of Defense, *Annual Report to Congress: Military and Security Developments Involving the People's Republic of China*, 2011, p. 4.

The PLAAF also refers to its SAM forces as “second artillery” (二炮) to distinguish it from its AAA troops or “first artillery” (一炮). However, this often causes confusion because the term can be mistaken for the PLA’s ballistic missile force, which is also called Second Artillery and uses the same Chinese characters. Of note, the PLAAF often identifies the SAM and AAA branches together as air defense units (防空部队).

Today, the PLAAF’s SAM forces are organized into one of the following four command structures, where the highest-level headquarters can be a division, brigade, or regiment:

- Air defense composite division (防空混成师) with separate SAM and AAA regiments, battalions, and launch/firing companies.⁸⁴
- SAM division (导弹师) with subordinate regiments, battalions, and companies
- SAM brigades (导弹旅) with subordinate battalions and, in some cases, launch companies
- SAM regiments with subordinate battalions and, in some cases, launch companies.

There are no identified situations in the PLAAF where a brigade is subordinate to a division. Furthermore, no SAM regiments are subordinate to SAM brigades. Depending on their location, SAM units can either be directly subordinate to an MRAF Headquarters or subordinate to a PLAAF command post, which is, in turn, subordinate to an MRAF Headquarters.

The administrative and functional departments in SAM divisions and brigades consist of a Headquarters Department headed by a chief of staff, a Political Department headed by a director, and a Logistics Department and Equipment Department. Each department has several subordinate offices (科) that equate to those in the PLAAF and MRAF Headquarters.

The administrative and functional departments in SAM regiments consist of a Headquarters Department headed by a chief of staff, a Political Division headed by a director, and a Logistics Division and Equipment Division. Each organization has several subordinate branches (股).

Surface-to-Air Missile Branch Reforms

Other than an increase in the number and types of SAMs in the order-of-battle, no changes to the organizational structure were noted.

Antiaircraft Artillery Branch

It is not clear how many AAA units the PLAAF has. The annual DoD report does not even mention AAA anywhere in the report. Furthermore, no credible Internet source provides information on the number or true unit designators for the PLAAF’s AAA units.

According to *PLAAF 2010*, the PLAAF’s AAA branch was originally established in 1946 as part of the ground forces. In August 1955, the CMC formally established the PLA Air Defense Force (ADF/解放军防空军) as one of the PLA’s four services. The new force was created by merging

⁸⁴ The characters *huncheng* (混成) can be translated as “combined,” “composite,” or “mixed.”

the ground forces' AAA, searchlight, observation, and radar units. In May 1957, the CMC merged the ADF into the Air Force, into a single service with aviation and air defense units. When the PLAAF and ADF merged, there were 11 AAA divisions. Today, the PLAAF has no remaining AAA divisions, as they have all been downgraded to brigades or regiments.

The PLAAF's AAA troops are organized into one of two command structures as follows, where the highest-level AAA headquarters is a brigade or regiment, each of which has subordinate battalions:

- AAA brigades (旅) with subordinate battalions, which are composed of firing companies.⁸⁵
- AAA regiments (团) with subordinate battalions, which are composed of firing companies.

The PLAAF also has a single air defense composite division that has separate SAM and AAA regiments, each of which have subordinate battalions and launch/firing (发射) companies.⁸⁶

Depending on their location, AAA units may be directly subordinate to an MRAF headquarters or they may be subordinate to a command post, which, in turn, is subordinate to an MRAF headquarters.

The administrative and functional departments in AAA and brigades consist of a Headquarters Department headed by a chief of staff, a Political Department headed by a director, and a Logistics Department and Equipment Department. Each department has several subordinate offices (科) that equate to those in the PLAAF and MRAF Headquarters.

The administrative and functional departments in AAA regiments consist of a Headquarters Department headed by a chief of staff, a Political Division headed by a director, and a Logistics Division and Equipment Division. Each organization has several subordinate branches (股).

Antiaircraft Artillery Branch Reforms

Other than changes to the order-of-battle, no changes to the organizational structure were noted.

Radar Branch

Radar Troops

PLAAF 2010 states that the first independent radar troop (雷达兵) units were established in 1949. Once the PLA ADF was established in December 1950, radar units were divided into two types. Those subordinate to the ADF were responsible for early warning, and those subordinate to the PLAAF were responsible for directly supporting aviation units. In 1957, the PLAAF and ADF merged and the radar troops became a formal branch of the PLAAF.

⁸⁵ In the case of firing companies, the PLAAF often translates “companies” as “batteries.” Cui Changqi, *A New English-Chinese Chinese-English Dictionary of Military Terms*, Beijing: National Defense Industry Press, October 1999, p. 38.

⁸⁶ In April 1989, the author had a discussion with the PLAAF commander, General Wang Hai, who said that the PLAAF's goal was to consolidate all SAM and AAA units into composite divisions. Obviously, this did not occur.

In 1959, company-level radar stations (雷达站) were established as the basic radar unit. In the early 1960s, the PLAAF created a 3-level structure consisting of regiments, battalions, and company-level stations. As the number of radar stations grew in the late 1990s, the PLAAF established some radar brigades as the highest-level headquarters. These brigades have subordinate battalions and stations.

Today, the PLAAF has two basic types of radar sites. The first type is located at airfields and is used primarily for air traffic control (ATC) and some ground-controlled intercept (GCI). The second type consists of early warning and GCI radars located throughout China.

Normally, PLAAF radar units are organized into one of two 3-tiered structures: brigades with subordinate battalions and stations, or regiments with subordinate battalions and stations. The brigade and regiment headquarters, which are also identified as intelligence stations (情报站), are responsible for collecting, managing, and disseminating radar intelligence. They also command subordinate radar battalions and stations.

The PLAAF and MRAF command structure collects and manages radar intelligence and organizes the structure for radar unit combat activities. The command structure above the brigade and regiment level is organized as follows:

- A radar intelligence central station (雷达情报总站) at PLAAF Headquarters
- A radar intelligence central branch station (雷达情报总分站) at each MRAF Headquarters
- Radar intelligence branch stations (雷达情报分站) at each command post.

Radar Branch Reforms

Although the PLAAF began creating radar brigades in the 1990s, it created new brigades in the Jinan, Lanzhou, and Shenyang MRAFs following the 2003-2004 force reduction by upgrading and consolidating regiments into brigades. In some cases, individual radar regiments have been either upgraded to brigades, or two regiments have been merged into a single brigade structure. As a result of these changes, these brigades now have control over a larger number of radar stations covering a wider geographical area.

In addition, reporting indicated the PLAAF established a “central radar station” (中心雷达站) in each of the Chengdu, Jinan, and Nanjing MRAFs. No references to central radar stations were noted in the four other MRAFs. These central radar stations appear to be either company- or battalion-level organizations, some of which have a mobile mission.⁸⁷

Airborne Branch

⁸⁷ Multiple sources, including *Air Force News* and the Internet.

According to *PLAAF 2010*, the PLA's airborne forces have always been subordinate to the Air Force rather than the Army.⁸⁸ In July 1950, the CMC established an Air Force Marine (空军陆战) brigade in Shanghai, but the headquarters was moved to Kaifeng, Henan Province, the following month. Thereafter, the unit's designation changed several times, becoming the Air Force Marine First Division, the Paratroops Division, and the Airborne Division. In 1961, the name was finally changed to the 15th Airborne Corps and had its headquarters in Xiaogan, Hubei Province. By the mid 1970s, the airborne corps had three airborne divisions. In the mid 1980s, the three divisions were reduced to brigades, but were again upgraded to divisions in 1993, each with about 10,000 troops.

Today, the 15th Airborne Corps (空 15 军) is directly subordinate to PLAAF Headquarters. With its headquarters in Xiaogan, Hubei Province, the corps consists of the following three subordinate divisions, each of which is organized into regiments, battalions, and companies:

- 43rd Airborne Division located in Kaifeng, Henan Province
- 44th Airborne Division located in Guangshui, Hubei Province
- 45th Airborne Division located in Wuhan, Hubei Province.

The three divisions are composed of several types of subordinate troops: infantry, motorized infantry equipped with light vehicles, mechanized infantry, artillery, air defense (AAA and SAM), special operations, communications, special forces, reconnaissance, engineering, helicopter, training, and logistics support.

The administrative and functional departments in the 15th Airborne Corps and division headquarters consist of a Headquarters Department headed by a chief of staff, a Political Department headed by a director, and a Logistics Department and Equipment Department. Each department for the corps and division headquarters has several subordinate divisions (处) or offices (科), respectively, that equate to those in the PLAAF and MRAF Headquarters.

The administrative and functional departments in subordinate regiments consist of a Headquarters Department headed by a chief of staff, a Political Division headed by a director, and a Logistics Division and Equipment Division. Each organization has several subordinate branches (股).

Airborne Branch Reforms

Other than changes to the order-of-battle, the 15th Airborne Corps began creating subordinate battalion-level helicopter *dadui* to its divisions in 2005.⁸⁹

Specialty Units

According to the 2010 edition of *World Military Yearbook*, the PLAAF has five types of specialty units and subunits (专业部(分)队)—communications, radar electronic countermeasures

⁸⁸ The airborne forces did not become an official branch until around 1992. Prior to that, the PLAAF's five branches were aviation, SAM, AAA, communications, and radar. The airborne troops were sometimes mentioned as a sixth branch.

⁸⁹ Various articles from *Air Force News* during 2005.

(ECM), chemical defense, and technical reconnaissance. It is not clear why radar troops are identified as both a branch and specialty units/subunits, but they are covered above.

Communications Troops

According to *PLAAF 2010*, the PLAAF's communications troops (通信兵) were originally part of the ground forces' signal corps in the late 1940s. Today, they are responsible for providing communications, navigation, and automated command support to the entire PLAAF.

The PLAAF's Headquarters Department has a subordinate Informatization Department (信息化部), which prior to 2011 was known as the Communications Department (通信部), that is responsible for providing guidance to all PLAAF communications units.

Communications troops are assigned to communications organizations at the regiment level down to squads. For example, PLAAF Headquarters and each MRAF Headquarters have a regiment-level main communications station (通信总站). Each main communications station has subordinate battalions, companies, platoons, and squads. In addition, communications regiments (通信团) are assigned to various organizations, such as the PLAAF Headquarters Department and the 15th Airborne Corps.

Concerning the personnel composition of these organizations, general communications stations and communications regiments are organized like all PLA and PLAAF regiment-level organizations, with a commander, political commissar, and four administrative and functional departments or divisions. Battalion- and company-level communications units have commanders, deputy commanders, and political officers, but they do not have any functional or administrative organizations.

Of note, a high percentage of communications personnel are females. Even though there are male communications personnel, the PLAAF does not appear to have mixed-gender communications companies, platoons, or squads.

Communications Troop Reforms

Other than new equipment, no changes to the Communications Troop organizational structure were noted.

Electronic Countermeasures Troops

PLAAF 2010 states that the PLAAF provides little public information about its electronic countermeasures specialty troops (电子对抗专业兵). According to *China's National Defense for 2008*, they are organized into brigades or regiments, each of which has subordinate battalions. The PLAAF formed its first ground-based ECM units in the early 1970s and aviation ECM units in the 1980s. These units were re-designated as specialty technical units in the 1990s.

The PLAAF's Headquarters Department has a subordinate Electronic Countermeasures and Radar Department (电子对抗雷达部) that is responsible for providing guidance to all PLAAF radar and ECM units.

Electronic Countermeasures Troop Reforms

Other than new equipment, little information on the Electronic Countermeasures Troop organizational structure was noted.

Chemical Defense Troops

According to *PLAAF 2010*, the PLAAF's chemical defense troops (防化部队), which actually include nuclear, biological, and chemical (NBC) responsibilities, are primarily responsible for decontaminating areas struck by chemical weapons, but also deal with radiological decontamination.

The PLAAF's chemical defense troops were created in 1951 as part of a field station. Since 1955, PLAAF Headquarters and each MRAF Headquarters have had a chemical defense administrative organization. Each MRAF Headquarters and most air corps-level organizations have a subordinate chemical defense subunit. During the 1960s and 1970s, the PLAAF also created a chemical defense research institute, training organizations, and equipment repair facilities.

Today, the highest-level PLAAF administrative and functional organization responsible for chemical defense troops is the Chemical Defense Division (防化处), which is subordinate to the Headquarters Department's Training Department. The Air Force Equipment Research Academy also has a subordinate Air Force Meteorology and Chemical Defense Research Institute (空军气象防化研究所).

At PLAAF Headquarters and the MRAF Headquarters, chemical defense troops are organized into regiment-level groups (防化大队) or battalion-level teams (防化队). These organizations have subordinate chemical defense subunits and/or companies. The regiment-level groups also have their own command post.

Operational units, including ground air defense and field stations, have embedded chemical defense teams that can be battalion, company, or platoon size and that range from a few people to more than 30. These organizations have a wide variety of support vehicles.

Each subunit, company, and team has subordinate squads, including observation, reconnaissance, and decontamination squads. Their primary missions include detecting and destroying nuclear, biological, and chemical agents.

Chemical Defense Troop Reforms

Little information on the Chemical Defense Troop organizational structure was noted.

Technical Reconnaissance Troops

According to *PLAAF 2010*, little information is available on the PLAAF's technical reconnaissance troops (技术侦察兵). From the limited writings, however, it is clear that the PLAAF's technical reconnaissance troops are responsible for intercepting, processing, and analyzing foreign communication signals and non-communication signals. In Western military terms, these troops carry out signals intelligence (SIGINT), electronic intelligence (ELINT), and measures and signals intelligence (MASINT). Their work includes electronic direction finding based on these various signal types.

Although the organization is unclear, PLA sources state that technical reconnaissance organizations exist at the levels of regiment and below, with technical reconnaissance company-level stations serving as the basic reconnaissance organization. Technical reconnaissance troops are also dispersed throughout other types of units, to include aviation, airborne, and radar units.

Technical Reconnaissance Troop Reforms

Little information on the Technical Reconnaissance Troop organizational structure was noted.

Equipment Research Academy

According to the *Air Force Encyclopedia*, in February 2004, PLAAF Headquarters formally established the Air Force Equipment Research Academy (空军装备研究院), which consolidated the administration of more than 20 PLAAF scientific research organizations.⁹⁰ The academy is a corps deputy leader-grade organization.⁹¹ The academy's administrative departments include a Science and Technology (S&T) Department (科技部), Political Department (政治部), and an Academy Affairs Department (院务部).⁹² The S&T Department serves as the Headquarters Department and the Academy Affairs Department most likely manages the facilities. The academy has about 1,500 S&T officers and 490 senior technical billets.

A review of the academy's activities since 2004 indicates that there are at least two primary reasons the PLAAF, along with the Navy and Second Artillery, created an equipment research academy. The first reason was to consolidate the management of all RDA under a single organization. The second reason was to be able to deal with the GAD and government RDA organizations on a more equal basis.

The *History of China's Aviation* states that the academy has 12 primary functions and responsibilities for equipment and weapon systems research and development (R&D/研制), which can be summarized as: (1) tracking foreign development of new military technology, equipment, and weapon systems; (2) serving as the PLAAF's top level organization for equipment and weapon system design, system development, regulations, and planning for new systems, modifying older systems, and special-use equipment; and (3) conducting research for

⁹⁰ Wang Kang, "Equipment Academy of Air Force," in Yao Wei, ed., *Air Force Encyclopedia*, Vol 2, p. 1252. The Logistics Department still has its own set of research institutes, including the Fuel Research Institute (油料研究所) and the Air Force Aviation Medicine Research Institute (空军航空医学研究所 or 航医学研究所).

⁹¹ During 2009 and 2010, the PLA had a ceremony for corps deputy leader-grade officers who received their first star. The leaders of the Air Force, Navy, and Second Artillery Equipment Research Academies were among those who received their stars. This clearly indicates that each of those organizations is a corps deputy leader-grade organization. Information accessed at <http://webcache.googleusercontent.com/search?q=cache:402M94YcDS0J:www.ourzg.com/bbs/read.php%3Ftid%3D87791+%222009%E5%B9%B4%E5%BA%A6%E6%99%8B%E5%8D%87%22+%22%E6%8E%88%E4%BA%88%E5%B0%91%E5%B0%86%E5%86%9B%E8%A1%94%22&cd=6&hl=en&ct=clnk&gl=us> for the 2009 ceremony and www.ourzg.com/bbs/simple/?t149938.html for the 2010 ceremony.

⁹² Wang Kang, "Equipment Academy of Air Force," in Yao Wei, ed., *Air Force Encyclopedia*, Vol 2, p. 1252. In early 2004, Second Artillery also created a Second Artillery Equipment Research Academy. In late 2003, the PLA Navy replaced the Naval Research Center (NRC) with its own Naval Equipment Research Academy.

the operational use, maintenance, and technical support for new and modified equipment.⁹³ Some of the subordinate institutes are shown below.⁹⁴ The research institutes are either division- or regiment-level organizations.⁹⁵

- Air Force Equipment General Demonstration (Development and Evaluation) Research Institute (空军装备总体论证研究所) is a regiment-grade organization, which has an Organization and Plans Division (组织计划处), Political Division (政治处), and Management Division (管理处), as well as nine research labs (研究室)⁹⁶
- Air Force Aviation Equipment Research Institute (空军航空装备研究所) is a division-grade organization, which has an S&T Division (科技处), Political Department (政治部), and Management Division, as well as several subordinate research institutes and labs⁹⁷
- Air Force Ground Air Defense Equipment Research Institute (空军地面防空装备研究所) is a regiment-grade organization, which has an S&T Division, Political Division, and Management Division, as well as six research labs and one testing workshop (试制车间)⁹⁸
- Air Force Radar and Electronic Countermeasures Research Institute (空军雷达与电子对抗研究所) is a division-grade organization, which has an S&T Division, Political Department, and Management Division, as well as several research labs⁹⁹
- Air Force Communications, Navigation, and Command Automation Research Institute (空军通信导航与指挥自动化研究所), which has a General Office (办公室), several research labs, and a services subunit (勤务分队)¹⁰⁰
- Air Force Reconnaissance and Intelligence Equipment Research Institute (空军侦察情报装备研究所), which has three research labs and a testing workshop¹⁰¹

⁹³ Liu Yazhou and Yao Jun, eds., *A History of China's Aviation: Second Edition* (中国航空史 [第二版]), (Hunan: Hunan Science and Technology Press, August 2007), p. 608-609.

⁹⁴ Wang Kang, "Equipment Academy of Air Force," in Yao Wei, ed., *Air Force Encyclopedia*, Vol 2, p. 1252.

⁹⁵ Although *Air Force Encyclopedia* entries noted in the next few endnotes do not state which grade the research institutes have, regiment-level organizations in the PLA have a Political Division (政治处), while division and above had a Political Department (政治部). The S&T Division apparently serves the same function as a Headquarters Department and works directly with the Equipment Research Academy's S&T Department. The Management Division apparently works with the Research Academy's Academy Affairs Department.

⁹⁶ Wang Kang, "Air Force Institute of Equipment General Development and Evaluation," in Yao Wei, ed., *Air Force Encyclopedia*, Vol 2, p. 1252. The Organization and Plans Division apparently serves the same functions as a Headquarters Department.

⁹⁷ Zhang Hongyuan, "Air Force Aeronautic Equipment Institute," in Yao Wei, ed., *Air Force Encyclopedia*, Vol 2, p. 1252.

⁹⁸ Wang Yuzhu, "Air Force Institute of Land-Based Air Defense Equipment," in Yao Wei, ed., *Air Force Encyclopedia*, Vol 2, p. 1252-1253.

⁹⁹ Zhu Heping, "Air Force Radar and ECM Institute," in Yao Wei, ed., *Air Force Encyclopedia*, Vol 2, p. 1253.

¹⁰⁰ Zhu Lin, "Air Force Institute of Communication, Navigation and Command Automation," in Yao Wei, ed., *Air Force Encyclopedia*, Vol 2, p. 1253. Other than a General Office, no other administrative organizations were identified, so it is not clear whether this is a regiment- or division-grade organization; however, it probably has an S&T Division, Political Division/Department, and a Management Division.

¹⁰¹ Gu Zhiming, "Air Force Institute of Reconnaissance Intelligence Equipment," in Yao Wei, ed., *Air Force Encyclopedia*, Vol 2, p. 1253. No administrative organizations were identified, so it is not clear whether this is a regiment- or division-grade organization; however, it probably has an S&T Division, Political Division/Department, and a Management Division.

- Air Force Weather and Chemical Defense Research Institute (空军气象防化研究所), which has an S&T Division, Political Department, and Management Division, as well as four research labs¹⁰²
- SAM Technical/Technology Services Research Institute (导弹技术勤务研究所)¹⁰³
- Air Force Equipment Software Testing and Evaluation Center (空军装备软件测评中心).¹⁰⁴

Academic Institution Reforms

According to *PLAAF Structure*, starting in the late 1990s, the PLAAF began to restructure its academic institutions (院校). To help provide better education to its cadets and meet operational support requirements, the PLAAF consolidated several colleges into two universities—Air Force Engineering University (空军工程大学) in 1999 and Air Force Aviation University (空军航空大学) in 2004—and restructured some of its other colleges—Xuzhou [Logistics] Air Force College, Guilin [AAA and Airborne] Air Force College, and flight colleges. At the same time, however, the PLAAF increased the number of new officers who have graduated from the Defense Student (国防生) program at 19 civilian universities. This program is also called the Reserve Officer (后备军官) program and is discussed later in the chapter.¹⁰⁵

Administrative and Functional Departments

According to *PLAAF Structure*, the PLAAF's non-flight college academic institutions plus the Air Force Aviation University through the end of 2010 are shown in Table 6 below. PLAAF academic institutions have at least the following three administrative and functional departments, which are always listed in protocol order:

- Training Department (训练部): The Training Department serves the same purpose as a Headquarters Department in other organizations. It is also responsible for all policy issues as well as managing all training matters. Every university has a Training Department, and most, but not all, of its subordinate xueyuan have their own Training Department. Each Training Departments has various subordinate organizations, such as:
- Political Department (政治部): The Political Department is organized the same as all other PLA Political Departments and serves the same functions. Every university has a Political Department, and most, but not all, of its subordinate xueyuan have their own Political Department.
- Xueyuan/School Affairs (院务部 或 校务部): It is not clear what the Xueyuan/School Affairs Department is responsible for, but it is most likely in charge of managing the facilities and logistics issues. Every university has this department, and some, but not all, of its subordinate xueyuan have their own department as well.

¹⁰² Yu Chenglang, “Air Force Institute of Aeronautic Meteorology and Chemical Defense,” in Yao Wei, ed., *Air Force Encyclopedia*, Vol 2, p. 1253.

¹⁰³ *Air Force Encyclopedia* did not have a separate entry for this institute.

¹⁰⁴ *Air Force Encyclopedia* did not have a separate entry for this institute.

¹⁰⁵ See Kenneth Allen, “Chinese Air Force Officer Recruitment, Education and Training,” Washington DC: The Jamestown Foundation *China Brief*, November 30, 2011, and Kenneth Allen, “PLA Air Force Male Aviation Cadet Recruitment, Education and Training,” Washington DC: The Jamestown Foundation *China Brief*, March 2, 2012.

Depending on the institution's mission and curriculum, it may have a Scientific Research Department (科研部), which is responsible for overseeing all of the institution's technical training curricula and systems research work. The Scientific Research Department also has subordinate classrooms and laboratories, where personnel from the department provide training to the cadets. For example, the National University of Defense Technology's Scientific Research Department has a Weapons and Equipment Development Research Center (武器装备发展研究中心).

The Graduate School (研究生院) is also considered an administrative and functional organization but not a department. It provides overall guidance for the graduate programs in each subordinate college. It does not have any students assigned to it. It is a corps deputy-leader grade organization.

Table 6: Academic Institution Departments and Grades

Academic Institution (grade)	Training	Political	Affairs	Basic	Scientific Research	City, Province	Missions
Command College (corps leader)	x	x	x		x	Beijing	Command officers
Engineering University (corps leader)	x	x	x	x	x	Xian, Shaanxi	Aircraft maintenance, SAMs, and Comms
Natural Science College (division leader)	x	x				Xian, Shaanxi	Basic education
Engineering College (division leader)	x	x	x	x	x	Xian, Shaanxi	Aircraft Maintenance
Air Defense Missile College (division leader)	x	x	x	x		Xian, Shaanxi	SAMs
Telecommunications Engineering College (division leader)	x	x	x	x		Xian, Shaanxi	Comms
Air Force Aviation University ¹⁰⁶	x	x	x		x	Changchun, Jilin	Basic aviator education
Air Force Airborne Troop College (corps deputy leader)	x	x		x		Guilin, Guangxi	AAA and airborne
Air Force Early Warning College (corps deputy)	x	x	x	x	x	Wuhan, Hubei	Radar
Air Force Logistics College (corps deputy leader)	x	x	x	x	x	Xuzhou, Jiangsu	Logistics
1 st Aviation College (division leader)	x	x	x	x	x	Xinyang, Henan	Aircraft maintenance
Dalian NCO Communications School (division leader)	x	x		x		Dalian, Liaoning	Comms

PLAAF Academic Institution Reforms in 2011-2012

According to Hong Kong *Wen Wei Po* press reports, the PLAAF began renaming some of its colleges in the summer of 2011 as shown below.¹⁰⁷ Although these reports were published in

¹⁰⁶ The Air Force Aviation University also has a subordinate Flight Basic Training Base and a Flight Training Base. Cadets who come from high school graduates receive 30 months of basic education and aviation theory at the Air Force Aviation University's Flight Basic Training Base. Some cadets also receive six months of follow-on training in a basic trainer at the University's Flight Training Base. Kenneth Allen, "PLA Air Force Male Aviation Cadet Recruitment, Education and Training," Washington DC: The Jamestown Foundation China Brief, March 2, 2012.

¹⁰⁷ Information accessed at <http://paper.wenweipo.com/2011/12/31/PL1112310005.htm> and <http://club.xilu.com/zgjsyj/replyview-819697-75949.html> on 25 March 2012.

December 2011, the PLAAF's newspaper, *Air Force News*, continued to use the old names until late May 2012.

- The Air Force Radar College (空军雷达学院) in Wuhan, Hubei Province, was renamed the Air Force Early Warning College (空军预警学院) to reflect an expanded scope of education and training.
- The Xuzhou Air Force College (徐州空军学院) in Xuzhou, Jiangsu Province, was renamed the Air Force Logistics College (空军勤务学院). Although the English name (Logistics College) is now the same as it was from 1993 to 2004, the Chinese term for logistics was changed from *houqin* (后勤) to *qinwu* (勤务), which is usually translated as “service.” According to the *PLA's Military Dictionary*, *qinwu* refers to units and subunits that carry out specialized support missions.¹⁰⁸ The dictionary does not have an entry for *houqin*.
- The Guilin Air Force College (桂林空军学院) in Guilin, Guangxi Autonomous Region, was renamed the Air Force Airborne Troop College (空军空降兵学院). The Guilin Air Force College was created in the early 1950s as the Antiaircraft Artillery School under the PLA Air Defense Force. The school was closed at the beginning of the Cultural Revolution in 1966 and reopened in 1978. It was upgraded to a college in 1986. Prior to 1999, the PLAAF's airborne command officers received training in various Army colleges. In 1999, the Guilin Air Force College expanded its scope to include training the PLAAF's airborne command officers. In 1999, the college added courses for the PLAAF's airborne forces and security police. As a result of adding these responsibilities, “AAA” was dropped from the name, and the school was renamed the Guilin Air Force College. Given that the college's name now includes only airborne troops, it is not clear where the PLAAF's AAA cadets will receive their undergraduate education and training.
- The Air Force Engineering University's (空军工程大学) Missile College (导弹学院) was renamed the Air Defense Missile College (防空导弹学院).¹⁰⁹
- On 28 April 2012, a ceremony was held in Bengbu, Anhui Province, to celebrate the creation of the Air Force Aviation University's subordinate Flight Instructor Training Base, which is located in Bengbu. The base was created from the former 13th Flight College. The base is now considered the Bengbu Campus of the Aviation University, which is located in Changchun, Jilin Province. The base is responsible for providing combined training for new flight controllers (飞行指挥员) in the tower, new flight instructors (飞行教员), and teaching management cadre (教学管理干部) for all of the PLAAF's flight colleges. It is also responsible for teaching various courses to operational aviation unit flight instructors.¹¹⁰

PLAAF Command College

As a mid-level command college, the Air Force Command College (空军指挥学院) provides one-year professional military education (PME) for officers who hold or will be assuming

¹⁰⁸ *Military Terminology of the Chinese People's Liberation Army* (中国人民解放军军语), Beijing: Academy of Military Science Press, September 2011, p. 67.

¹⁰⁹ *Air Force News*, 22 May 2012, p. 3.

¹¹⁰ Information accessed at www.bblft.com/news.php?id=8868 and www.bengbu.gov.cn/bbxw/article.jsp?articleId=21005573 on 9 June 2012.

“commanding” officer billets at the regiment (colonel), brigade (colonel), and division (senior colonel) levels, which include commanders, deputy commanders, political officers, and logistics and equipment officers. The one-year program also includes staff officers (majors, lieutenant colonels, and colonels) who will serve in regiment and above headquarters. In addition, the college has an advanced-level course known as the Campaign Command Course for division- and corps-level (major general) officers, who have the opportunity to travel abroad each year. The college also provides master’s, doctorate, and post-graduate programs for certain commanding officer specialties plus short-term (2-4 week) PLAAF and joint courses. Finally, it also holds various courses for foreign officers, some of which only recently began to include PLAAF officers.

The Air Force Command College should not be compared to the U.S. Air Force’s Air University (AU), Air War College (AWC), Air Command and Staff College (ACSC), and Squadron Officer College (SOC), because they are not structured the same nor do they have the same missions. For example, whereas the AWC offers master’s degrees and about half of each class includes officers from other services and the Air National Guard, as well as government civilians, students in the Air Force Command College’s year-long intermediate course receive only a certificate and the course does not appear to include officers from the Army, Navy, and Second Artillery. The only courses that include officers from the other services and branches are short-term courses on specialized topics.

Command College Reforms since 2000

Since 2000, the Command College has implemented several new programs aimed at increasing the command level of its officers in single branch, combined arms, and joint environments. It also created a Foreign Officer Training Program. The details are discussed below.

In April 2003, the college initiated its first 12-day advanced- and mid-level theory training rotation class. The class had 80 leaders from division and above headquarters. The class focused on political theory, including Deng Xiaoping, Jiang Zemin’s Three Represents, and guidance from the 16th Party Congress.¹¹¹

In September 2004, the college created the Air Force Talented Personnel Research Center (空军人才研究中心) to help develop programs to recruit, train, and retain the proper personnel for the PLAAF’s new weapons and equipment.¹¹²

In 2006, the college built a new exercise command post for its students. The officers in the photos are majors and lieutenant colonels, which indicates they are battalion leader- and regiment deputy leader grade officers who are probably serving as staff officers in regiment- or division-level headquarters. The article highlighted the fact with exclamation marks that a single PLA Navy officer participated, which implied this was a new situation.¹¹³

In addition to conducting a joint operations exercise in the new command post, the college held a 10-day field exercise in October 2009 to celebrate the PLAAF’s 60th anniversary. According to

¹¹¹ *Air Force News*, 15 April 2003, p. 1.

¹¹² Information accessed at <http://mil.news.sina.com.cn/2004-09-24/2152230231.html> on 19 February 2012.

¹¹³ Wei Weifeng, “I am a “Red Force Chief of Staff,” (我是“红军参谋长”), *China Air Force*, 2007-3, p. 42-44.

an *Air Force News* article, 500 students, faculty, and researchers participated in the exercise that covered about 1,000 kilometers, including 232 by marching for six days.¹¹⁴ A similar exercise took place in April 2010.¹¹⁵

In 2006, the college built a new Campaign Training Center that allowed the students to incorporate a 15-day joint training exercise at the end of the year-long course for regiment- and division-level officers.¹¹⁶ However, the 300-member class did not include officers from the other services.¹¹⁷ Furthermore, because the college separates the students by specialty for most of the course, they still had little daily interaction with officers from the other specialties.

In January 2010, the graduating class conducted its 15-day joint operations graduation exercise. A total of 40 students were selected to rotate among various commanding positions. An *Air Force News* article stated that not all of them had self-confidence. Their problems included failure to use standard military terminology, ineptitude in command procedures, and unsatisfactory verbal expression and psychological qualities.¹¹⁸

In May 2011, the college implemented two one-month courses per year for 30 students each that focused on strategic planning. The students included second- and third-level department, bureau, and division directors from Air Force Headquarters.¹¹⁹

Finally, in March 2001, the college established a Foreign Student Training Program.¹²⁰ From then until March 2010, it held 35 courses. During this period, the college trained 511 officers from 62 countries, most of which are Third World countries, but some developed countries participated. The limit for attendance in any single course has been just over 20 countries. According to statistics, 22 of the 511 officers who attended the course achieved flag rank, serving as deputy commanders, unit chiefs of staff, and base commanders.

Flight College Reforms

Table 7 provides information about the PLAAF's seven flight colleges prior to mid-2011, when the PLAAF began to merge them together. Each flight college, which was a division-leader grade organization, was organized in the same way as an operational air division with a command staff plus four administrative and functional departments—Headquarters Department

¹¹⁴ *Air Force News*, 29 October 2009, p. 2.

¹¹⁵ Information accessed at <http://news.sohu.com/20100425/n271736358.shtml> on 20 February 2012.

¹¹⁶ Ma Dezu and Yang Chunyuan, "Joint Operations Exercise by Students Graduating from Air Force Command Academy," *KJB*, 10 March 2007, p. 4. Tan Ji and Hu Jun, "Air Force Command College Increases Education Quality of Command Personnel," *PLA Daily*, 14 July 2009.

¹¹⁷ By comparison, the USAF's Air War College (AWC) has about 240-250 students per class, but only one-half are Air Force officers. The remaining AWC students are Army, Navy, Marine, and foreign military officers, as well as civilians. See "AWC Student Demographics: Class of 2009," www.au.af.mil/au/awc/students.htm (accessed 3 December 2009).

¹¹⁸ *Air Force News*, 25 January 2010, p. 2.

¹¹⁹ *Air Force News*, 11 May 2011, p. 1.

¹²⁰ Guo Kai and Hu Yun, "Air Force Command College Foreign Training Work 10 Years Bears Fruit," *Air Force News*, 5 April 2010, p. 1. Hu Yun and Xue Haixiang, "Air Force Command College Chinese and Foreign Officer Same Course Combined Training Revelation," *Air Force News*, 15 March 2010, p. 3. Zhang Xuefeng and Hu Yun, "Air Force Command College Chinese and Foreign Student Combined Training Documentary," *China Air Force*, March 2010, p. 30-33.

(司令部), Political Department (政治部), Logistics Department (后勤部), and Equipment Department (装备部). Rather than academic departments, each college had at least one subordinate basic trainer (初级教练机) regiment, where cadets train for six months, and one or more advanced trainer (高级教练机) regiments, where cadets train for twelve months before graduating. As with the PLAAF's operational units, the training regiments are organized into at least two flight groups (飞行大队), which, in turn, have subordinate flight squadrons (飞行中队).

Table 7: Pre-2012 PLAAF Flight Colleges

Academic Institution	Headquarters	Political	Logistics	Equipment	City, Province	Mission
1 st Flight College	X	X	X	X	Harbin, Heilongjiang	Transport, bomber, and tanker crew
2 nd Flight College	X	X	X	X	Huxian, Shaanxi	
3 rd Flight College	X	X	X	X	Jinzhou, Liaoning	Fighter and/or ground attack pilots
4 th Flight College	X	X	X	X	Shijiazhuang, Hebei	
5 th Flight College	X	X	X	X	Wuwei, Gansu	
6 th Flight College	X	X	X	X	Zhuozhou, Hebei	
13 th Flight College	X	X	X	X	Bengbu, Anhui	

According to two articles in late December 2011 from Hong Kong's *Wen Wei Po Online*, the PLAAF had consolidated its seven flight colleges shown in Table 7, in which resources were relatively decentralized and there was an overlap of their functions and designs, with four of its original seven MRAF flight transition training bases.¹²¹ Additional articles since then have provided further information stating that the PLAAF had consolidated six of the existing flight colleges into three newly formed flight colleges in Harbin, Shijiazhuang, and Xi'an. Each of these new flight colleges are corps deputy leader-grade (副军职) organizations.¹²² In addition, the former 13th Flight College has been transformed into a Flight Instructor Training Base subordinate to the Air Force Aviation University.

The articles have not, however, discussed how they are organized other than that they now have at least some subordinate training brigades. It appears that each new flight college was created by merging the headquarters from two previous flight colleges, but the airfields and their training units still exist.

¹²¹ Ni Eryan, "PLA Quietly Advances Reforms in Organizations and Structures," Hong Kong *Wen Wei Po Online* in Chinese, 31 December 2011. The Chinese version of the article used the grade of "corps level" (军级), which refers to both corps leader and corps deputy leader. Ni Eryan, "Adequate Preparations Against War Is the Best Means of Preventing It: Trend of Development of the PLA Air Force's Transformation," Hong Kong *Wen Wei Po* in Chinese, 21 January 2012.

¹²² Ni Eryan, "Adequate Preparations against War Is the Best Means of Preventing It: Trend of Development of the PLA Air Force's Transformation."

Each new flight college obviously has a commander, political commissar, deputy commanders and deputy political commissars, as well as a Headquarters Department, Political Department, Logistics Department, and Equipment Department. In addition, because each new flight college has a higher grade, every billet has been upgraded as well.

The following bullets provide a summary of the information available from Wikipedia websites in Chinese about how each of the new flight college was formed:

- Air Force Xi'an Flight College (空军西安飞行学院)¹²³
 - Established in late 2011
 - The subordination is not clear, but it is most likely subordinate to PLAAF Headquarters
 - The headquarters is most likely located at the previous 2nd Flight College's campus in Huxian, Shaanxi Province, which is located just west of Xi'an
 - Headquarters of the former 2nd Flight College, which was divided into Huxian, Shaanxi (Lanzhou MRAF) and Jiajiang, Sichuan (Chengdu MRAF), was abolished and all subordinate units were merged under the Xi'an Flight College
 - Headquarters of the 5th Flight College in Wuwei, Gansu Province, was abolished and all subordinate units were merged under the Xi'an Flight College
 - Served as the model for new training brigades
 - At least 2, and probably 4, subordinate regiments have been upgraded to training brigades¹²⁴
- Air Force Harbin Flight College (空军哈尔滨飞行学院)¹²⁵
 - Established in early 2012
 - Subordinate to PLAAF Headquarters
 - Headquartered at the former 1st Flight College in Harbin, Heilongjiang Province
 - Headquarters of the former 1st Flight College in Harbin was abolished and all subordinate units were merged under the Harbin Flight College
 - Headquarters of the former 3rd Flight College in Jinzhou, Liaoning Province, was abolished and all of its subordinate units were merged under the Harbin Flight College
 - 2 subordinate regiments upgraded to training brigades¹²⁶
- Air Force Shijiazhuang Flight College (空军石家庄飞行学院)¹²⁷

¹²³ Information accessed at <http://zh.wikipedia.org/wiki/%E4%B8%AD%E5%9B%BD%E4%BA%BA%E6%B0%91%E8%A7%A3%E6%94%BE%E5%86%9B%E7%A9%BA%E5%86%9B%E7%AC%AC%E4%BA%8C%E9%A3%9E%E8%A1%8C%E5%AD%A6%E9%99%A2> on 10 July 2012.

¹²⁴ The 2nd Training Brigade was identified in Li Qiang, "A Careful New Opening," *Air Force News*, 10 May 2012, p. 3, which has a photo of K-8s and an accompanying caption. The 4th Training Brigade was identified in Fan Jun and LI Guan, "Lanzhou MRAF Flight College 4th Training Brigade Safety Inspectors Strictly Adhere to Quality and Safety," *Air Force News*, 7 May 2012, p. 2.

¹²⁵ Information accessed at <http://zh.wikipedia.org/wiki/%E4%B8%AD%E5%9B%BD%E4%BA%BA%E6%B0%91%E8%A7%A3%E6%94%BE%E5%86%9B%E7%A9%BA%E5%86%9B%E7%AC%AC%E4%B8%80%E9%A3%9E%E8%A1%8C%E5%AD%A6%E9%99%A2> on 10 July 2012.

¹²⁶ Wang Zhijia and Zhao Bing, "Shenyang MRAF Flight College 1st Brigade," *Air Force News*, 28 May 2012, p. 2. Wang Zhijia and Ma Yaowu, "Shenyang MRAF Flight College 2nd Training Brigade," *Air Force News*, 22 May 2012, p. 3.

- Established in early 2012
- The subordination is not clear, but it is most likely subordinate to PLAAF Headquarters
- Headquartered at the former 4th Flight College in Shijiazhuang, Hebei Province
- Headquarters of the former 4th Flight College in Shijiazhuang was abolished and all subordinate units were merged under the Shijiazhuang Flight College
 - At least one, and probably more, former regiments have been upgraded to training brigades
- Headquarters of the former 6th Flight College in Zhuozhou, Hebei Province, was abolished and all subordinate units were merged under the Shijiazhuang Flight College
 - It is not clear if any former regiments have been upgraded to training brigades

Pilot PME and Graduate Degrees

It does not appear that pilots receive any basic-level PME after they are assigned to their permanent unit. Furthermore, unless a pilot is a staff officer or commanding officer in a regiment, brigade, or division headquarters, it does not appear that they receive any mid-level PME.

During the 2000s, however, the PLAAF began providing the opportunity for some pilots to receive a master's degree. As a result, only a small number of PLAAF pilots receive a graduate degree. For example, in October 2009, eight test pilots at the PLAAF's Xi'an Yanliang Flight Test and Training Group were the first pilots in the unit to receive their two-year's master's degree at Northwestern Polytechnical University.¹²⁸ In January 2003, Jin Wenya (靳文雅), who was a member of the 6th female pilot class, became the first female in the PLAAF to receive a master's degree, which she began in 2000.¹²⁹

Air Force Military Professional University

In June 2008, the PLAAF created the distance learning, online Air Force Military Professional University (空军军事职业大学), and its first classes began in September of that year. PLAAF Commander General Xu Qiliang became the university's commandant, and PLAAF Political Commissar General Deng Changyou became the political commissar. The university has branch campuses in each of the PLAAF's four departments, each MRAF Headquarters, and the Airborne Corps headquarters. Every independent unit at the regiment level and above also has its

¹²⁷ Information accessed at <http://zh.wikipedia.org/wiki/%E4%B8%AD%E5%9B%BD%E4%BA%BA%E6%B0%91%E8%A7%A3%E6%94%BE%E5%86%9B%E7%A9%BA%E5%86%9B%E7%AC%AC%E5%9B%9B%E9%A3%9E%E8%A1%8C%E5%AD%A6%E9%99%A2> on 10 July 2012.

¹²⁸ Information accessed at http://blog.sina.com.cn/s/blog_4dacb4240100g2is.html on 19 February 2012.

¹²⁹ *Air Force News*, 28 January 2003, p. 1.

own study center.¹³⁰ Officer corps and enlisted force students receive courses on CDs and can study via online individually or in groups.¹³¹

Another significant change in the PLAAF's academic institution structure was the PLA's creation in 1998 of a Defense Student (国防生) Program, which is also called the Reserve Officer (后备军官) Program, in a few civilian universities.¹³² In May 2000, the State Council and CMC issued the "Decision Concerning Establishing a System for Civilian Colleges to Educate and Train Military Officers." To date, the PLA has created programs in 117 civilian universities, including 19 PLAAF programs each of which has its own website.¹³³ The 19 universities with PLAAF programs are shown in Table 8 below:

¹³⁰ Wei Yinhai and Zhang Jinyu, "Air Force Military Professional University Established," *english.chinamil.com.cn/site2/news-channels/2008-07/04/content_1348728.htm*, 4 July 2008. "The PLA's First Military Professional University is Established in the Air Force" (全军第一家军事职业大学在空军挂牌成立), www.go81.net/news/shownews_12454.html, 3 July 2008. In early 2009, the PLAAF created the Military Professional Education Department to manage the university and to link up with the China Central Radio and TV University. The department director is Zhang Liqun (张力群). Information accessed at www.infzm.com/content/29139 and www.crtvu.edu.cn/DDSX/file.php?id=8868 on 7 November 2010.

¹³¹ www.eol.cn/dong_tai_2866/20111012/t20111012_692694.shtml and http://gaokao.eol.cn/dong_tai_2866/20111012/t20111012_692301_1.shtml.

¹³² <http://military.people.com.cn/GB/42969/58520/15764191.html>.

¹³³ www.dx513.com/Article/tee/19816.html and <http://military.people.com.cn/GB/1076/52966/15699452.html>.

Table 8: 19 Universities with PLAAF Defense Student Programs

Name	Location
Beijing University of Aeronautics and Astronautics (北京航空航天大学)	Beijing
Changchun University of S&T (长春理工大学国防科学技术学院)	Changchun, Jilin
Changchun University of Technology (长春工业大学)	Changchun, Jilin
Changsha University of S&T (长沙理工大学)	Changsha, Hunan
Hebei University of Technology (河北工业大学)	Tianjin, Hebei
Hunan University (湖南大学)	Changsha, Hunan
Lanzhou Jiaotong University (兰州交通大学)	Lanzhou, Gansu
Lanzhou University (兰州大学)	Lanzhou, Gansu
Nanjing University of Aeronautics and Astronautics (南京航空航天大学)	Nanjing, Jiangsu
Nanjing University of Information S&T (南京信息工程大学)	Nanjing, Jiangsu
Shandong University of Technology (山东理工大学)	Zibo, Shandong
Shenyang Institute of Aeronautical Engineering (沈阳航空工业学院空军后备军官学院)	Shenyang, Liaoning
Shenyang University of Technology (沈阳工业大学国防生教育学院)	Shenyang, Liaoning
Southeast University (东南大学)	Nanjing, Jiangsu
Tsinghua University (清华大学)	Beijing
University of Electronics S&T (电子科技大学)	Chengdu, Sichuan
Wuhan University of Technology (武汉理工大学)	Wuhan, Hubei
Xidian University [Xian Electronics S&T University] (西安电子科技大学)	Xian, Shaanxi
Xihua University (西华大学后备军官学院)	Chengdu, Sichuan

Based on analysis of multiple sources, the PLA and PLAAF academic institutions are managed by the General Staff Department's (GSD's) Military Training Department and the PLAAF Headquarters Department's Military Training Department, respectively, but the Defense Student Program is managed by the General Political Department's (GPD's) Cadre Department and the PLAAF Political Department's Cadre Department. As a result, there is virtually no oversight of the Defense Student Program by the training organizations.¹³⁴

¹³⁴ www.ylhxjx.com/ebook/jxyj/jayy2008/jayy20080307-1.html. See Kenneth Allen, "Chinese Air Force Officer Recruitment, Education and Training," Washington DC: Jamestown Foundation's *China Brief*, Volume 11, Issue 22, November 30, 2011, for further information on this program.

Conclusion

Besides upgrading its weapon systems and equipment over the past decade, the PLAAF has also made some significant reforms to its organizational structure. Four of the most significant changes were the addition of the brigade level to the aviation branch, the merger of additional radar regiments into brigades, the downgrading of air corps and bases to command posts followed by reinstating four bases, and the beginning of transitioning the flight commanders from the top of the control tower into the command post and replacing them with flight adjusters. While a few changes occurred in the Headquarters Department, such as renaming the Communications Department the Informatization Department, the most significant changes occurred in the Equipment Department with respect to the military representative system and the creation of the Equipment Research Academy. In addition, the PLAAF has made major reforms to its officer cadet education and training system. Besides creating the Air Force Aviation University and merging its flight colleges, it changed the name of some of its specialty colleges and created Defense Student Programs in 19 civilian universities. It also created an online university for correspondence courses.

None of these reforms occurred over night, and some of them are still being implemented. As such, more reforms will most likely occur over the next decade as the PLAAF tries to match its organizational structure and personnel to its growing technological capabilities.

Chapter Eleven: The People's Liberation Army Second Artillery Force (PLASAF) as an Organization

Michael S. Chase, Daniel Yoon, and Mark Stokes¹

Introduction

As part of the ongoing modernization of the People's Liberation Army (PLA), the People's Republic of China (PRC) has clearly prioritized the improvement of its ballistic and cruise missile capabilities. Indeed, the transformation of the PLA Second Artillery Force (PLASAF/第二炮兵/二炮), which as China's strategic missile force is responsible for most of its conventional and nuclear ballistic missiles and land-attack cruise missiles (LACMs) — has emerged as one of the centerpieces of Chinese military modernization.² In less than two decades, China has progressed from a limited and vulnerable, non-mobile nuclear ballistic missile capability to one of the world's most impressive nuclear and conventional ballistic missile, as well as cruise missile, programs. The transformation of Second Artillery is underscored by an April 2009 U.S. National Air and Space Intelligence Center (NASIC) report, which concludes that China now has “the most active and diverse ballistic missile development program in the world.”³ In addition, China is “developing and testing offensive missiles, forming additional missile units, qualitatively upgrading certain missile systems, and developing methods to counter ballistic missile defenses.”⁴

The past decade has witnessed significant changes in PLASAF's organizational structure. The number of missile bases has remained constant, but as the NASIC report indicates, there has been an increase in the number of brigades as Second Artillery has formed new missile units. Other important organizational changes include the implementation of a new military cover unit designator (MUCD) system in 2000 that addressed the current and future PLASAF structure; the establishment of the Second Artillery Equipment Research Academy in 2004 to better organize and manage equipment research for PLASAF; and the addition of the commander of PLASAF to the Central Military Commission (CMC) in 2004, along with the commanders of the PLA Navy (PLAN) and PLA Air Force (PLAAF), as part of China's attempt to promote “jointness” in a military traditionally dominated by ground force officers.

Along with these important organizational changes, Second Artillery has thus become one of the most dynamic parts of the PLA, particularly in terms of force modernization, since the publication of the *PLA as Organization VI.0* conference volume in 2002. When that publication was released, Second Artillery was already well on its way to becoming a credible nuclear deterrent and conventional strike force, but its capabilities in these areas were still somewhat limited. In 2002, China was in the process of replacing its DF-5 (CSS-4 Mod 1) silo-based

¹ The views expressed in this paper are those of the authors alone.

² We use the terms Second Artillery Force and PLASAF even though the original version of this conference volume used the term Second Artillery Corps. China has used the term Second Artillery Force since the publication of its first biennial defense white paper in 1998, and China began using the acronym PLASAF to refer to Second Artillery Force in *China's National Defense 2010*.

³ National Air and Space Intelligence Center, *Ballistic and Cruise Missile Threat*, NASIC-1031-0985-09, April 2009, p. 3.

⁴ Ibid.

intercontinental ballistic missiles (ICBMs) with the longer-range DF-5A (CSS-4 Mod 2) ICBMs, but it had not yet deployed any road-mobile DF-31 (CSS-10 Mod 1) or DF-31A (CSS-10 Mod 2) ICBMs, which remained under development at the time, according to the 2002 Department of Defense report on Chinese military power.⁵ As for the PLASAF developing its conventional missile force, in 2002, the Department of Defense reported that China had deployed about 350 conventional short-range ballistic missiles (SRBMs) opposite Taiwan, a number that analysts projected would “increase substantially over the next several years.”⁶ Indeed, by the end of 2010, China had not only enhanced the survivability and striking power of its nuclear force by deploying the DF-31 and DF-31A road-mobile ICBMs, but also roughly tripled the size of its conventional SRBM force to about 1,000-1,200 missiles.⁷ The number of SRBM brigades increased along with the expansion of China’s conventional ballistic missile force, from three identified in the first *PLA as Organization* conference volume to at least seven identified in this edition, a number that includes the two SRBM brigades previously subordinate to the Nanjing and Guangzhou Military Regions (MRs). The brigades previously subordinate to Nanjing and Guangzhou MRs were transferred to Second Artillery in 2010, making PLASAF responsible for all of China’s land-based ballistic missiles.

Furthermore, the diversification of China’s conventional missile force to include DF-21C conventional medium-range ballistic missiles (MRBMs) and the DF-21D, the world’s first anti-ship ballistic missile (ASBM), is strengthening its deterrence and warfighting capabilities. China is also refining its doctrine for missile force operations and increasing the realism and sophistication of missile force training.⁸ As a result of these developments, in less than a decade since publication of the inaugural *PLA as Organization* conference volume, the PLASAF has clearly emerged as the cornerstone of the Chinese military’s growing strategic deterrence, coercive diplomacy, and precision-strike capabilities.

This assessment underscores the PLASAF’s growing ability to fulfill its assigned nuclear and conventional missions. Beijing’s own description of Second Artillery’s key missions, as outlined in *China’s National Defense 2008*, indicated that the PLASAF “is mainly responsible for deterring other countries from using nuclear weapons against China, and for conducting nuclear counterattacks and precision strikes with conventional missiles.”⁹ Furthermore, according to the same report:

The Second Artillery Force sticks to China’s policy of no first use of nuclear weapons, implements a self-defensive nuclear strategy, strictly follows the orders of the CMC, and takes as its fundamental mission the protection of China from any nuclear attack. In peacetime, Second Artillery’s nuclear missile weapons are

⁵ Department of Defense, *Annual Report on the Military Power of the People’s Republic of China, 2002*, p. 2-3.

⁶ *Ibid.*

⁷ Department of Defense, *Annual Report on Military and Security Developments Involving the People’s Republic of China, 2011*, p. 30.

⁸ See Department of Defense, *Annual Report on Military and Security Developments Involving the People’s Republic of China, 2011*, p. 34, and Ron Christman, “Conventional Missions for China’s Second Artillery Corps: Doctrine, Training, and Escalation Control Issues,” in Andrew S. Erickson and Lyle J. Goldstein, ed., *Chinese Aerospace Power: Evolving Maritime Roles*, Annapolis, MD: Naval Institute Press, 2011, p. 307-327.

⁹ *China’s National Defense in 2008*, Beijing: State Council Information Office, January 2009, www.english.gov.cn/official/2009-01/20/content_1210227.htm.

not aimed at any country. But if China comes under a nuclear threat, Second Artillery's nuclear missile force will go into a state of alert, and get ready for a nuclear counterattack to deter the enemy from using nuclear weapons against China. If China comes under a nuclear attack, Second Artillery's nuclear missile force will use nuclear missiles to launch a resolute counterattack against the enemy either independently or together with the nuclear forces of other services. Second Artillery's conventional missile force is charged mainly with the task of conducting medium- and long-range precision strikes against the enemy's key strategic and operational targets.¹⁰

Although Chinese writers discuss these policy and strategic-level issues with some regularity, they rarely offer detailed descriptions of China's deployed or developmental missile systems. Nonetheless, senior military leaders appear to be increasingly confident about the PLASAF's nuclear and conventional missile capabilities. In 2008, then-Second Artillery Commander General Jing Zhiyuan (2003-2012) and then-Second Artillery Political Commissar General Peng Xiaofeng (2003-2009) provided an authoritative review of Second Artillery's development in the reform and opening era since 1978. They underscored the strengthening of the combat capability of the missile force, writing that the "integrated combat capability of the troops has been elevated significantly." They also highlighted improvements in the realism and overall quality of missile force training. Jing and Peng also emphasized the importance of the "major breakthroughs" that have been made in the development of Second Artillery's weapons and equipment. They also stressed that Second Artillery has made advances in a number of other areas, such as political and ideological work, international exchanges, logistics and support capabilities, management, and personnel development.¹¹

Second Artillery's central focus remains on strengthening its deterrence and combat operations capabilities, but it is also responsible for improving its ability to participate in "non-war military operations" such as domestic disaster relief efforts.¹² As Jing and Peng pointed out, Second Artillery engineering and medical units participated in disaster relief operations following the rain and ice storm in South China in early 2008 and the devastating earthquake in Wenchuan, Sichuan Province in May of the same year.¹³ Overall, Jing and Peng concluded that China's leadership requires the military to enhance its "ability to cope with various security threats and to fulfill diversified military tasks." As a result, "the new situation and new tasks have put forth new and higher requirements for the development of the Second Artillery."¹⁴ These changes, in

¹⁰ *China's National Defense in 2008*, Beijing: State Council Information Office, January 2009, www.english.gov.cn/official/2009-01/20/content_1210227.htm.

¹¹ Jing Zhiyuan and Peng Xiaofeng, "Riding the Tide, Sharpening the Sword, and Creating Glory: Recalling the Glorious History of the Accelerated Construction and Development of the Second Artillery in the Reform and Opening Era," in Second Artillery Political Department, ed., *Glorious Era: Looking Back on Development and Advances of the Second Artillery in the Period of Reform and Opening*, (辉煌年代: 回顾在改革开放中发展前进的第二炮兵), Beijing: Zhongyang Wenxian Publishing, 2008, p. 1-22.

¹² *Ibid.*

¹³ *Ibid.* According to Jing and Peng, "engineer units opened up roads through the mountains and built bridges over rivers, going all out to save people's lives and properties and to restore production and daily life following the disaster. The logistics detachments went to villages and households to rescue the injured and treat the sick." Jing and Peng laud Second Artillery units for having "made prominent contributions to winning a victory in the struggle to fight rain and ice storm and the earthquake and in the disaster relief operations."

¹⁴ *Ibid.*

turn, have had important implications for Second Artillery's organizational structure, which has evolved considerably since the publication of the first *PLA as Organization* conference volume.

Key Findings

Against this backdrop, we reach several key findings about the evolving capabilities and institutional development of the PLA's Second Artillery Force:

- Second Artillery's growing nuclear strike capabilities make it China's "core force...for strategic deterrence."¹⁵ It is also emerging as one of the cornerstones of Chinese military power more broadly because of its growing conventional capabilities, which could be employed for deterrence and intimidation as well as to conduct conventional precision strikes against regional targets.
- According to *Science of Second Artillery Campaigns*, in future combat operations, Second Artillery's "main mission" (基本任务) will be "dual deterrence, dual operations" (双重威慑, 双重作战). With its powerful nuclear and conventional missile force capabilities, official Chinese missile force publications characterize Second Artillery as the "trump card" for winning local wars under "informatized" conditions, the information-dependent type of conflict Chinese scholars assess the PLA must be prepared to face in the future.¹⁶
- The most important development with respect to the nuclear missile force is the transition to a more survivable and thus more credible nuclear force posture. After decades of vulnerability, the PLASAF's deployment of road-mobile ICBMs over the past several years is increasingly enabling it to support "effective" nuclear deterrence in line with China's longstanding quest for an assured retaliation capability.
- At the same time, China's conventional missile force is emerging as a central element of the PLA's capability to execute a variety of types of joint military campaigns. The conventional missile force is especially critical as the conventional precision strike component of the "counter-intervention" aspects of such campaigns (Western observers typically refer to China's "counter-intervention" capabilities by using the terms "anti-access" and "area denial." It should be noted, however, that this is U.S. terminology, and it is not actually used in authoritative Chinese sources, which refer instead to "counter-intervention" actions).
- China's development of the world's premier conventional ballistic missile force not only gives China options for conventional precision strikes against regional targets as part of joint campaigns, but also provides Beijing with a powerful instrument of conventional deterrence, coercive diplomacy, and intimidation.
- Chinese publications underscore the view that conventional missile force operations in a conflict involving a nuclear-armed adversary would inevitably take place under "nuclear deterrence conditions." This requires the nuclear force to serve as a deterrent "backstop" to support conventional missile force operations.¹⁷

¹⁵ "The Second Artillery Force of the PLA," Ministry of National Defense, People's Republic of China, <http://eng.mod.gov.cn/ArmedForces/second.htm>.

¹⁶ People's Liberation Army Second Artillery, *The Science of Second Artillery Campaigns* (第二炮兵战役学), Beijing: PLA Press, 2004, p. 138.

¹⁷ See *Science of Second Artillery Campaigns* and Zhao Xijun, *Intimidation Warfare: A Comprehensive Discussion of Missile Deterrence* (慑战--导弹威慑纵横谈) Beijing: National Defense University Press, May 2005.

- The key driver of changes in nuclear force structure is China's concern about the credibility of its traditional nuclear deterrent posture in the face of improvements in adversary intelligence, surveillance, and reconnaissance (ISR), conventional precision strike, and missile defense capabilities.
- Development of China's conventional missile force has been driven by several factors, including desire to influence politics in Taiwan and deter U.S. intervention in a Taiwan Strait crisis or conflict and relative advantages offered by emphasizing missile force modernization as opposed to relying more heavily on capabilities such as stealth aircraft as means of conducting precision strikes.
- Since the publication of *PLA as Organization v1.0*, some aspects of PLASAF organization have remained relatively constant: the basic organizational structure of PLASAF still consists of PLASAF Headquarters, missile bases, missile brigades, launch battalions, launch companies and platoons, and various types of support regiments.
- But there have been important changes, as evolving strategy, missions, and capabilities have affected Second Artillery's organizational structure. The increase in the number of missile brigades is particularly striking—Second Artillery now has at least 28 missile brigades, almost double the number identified in the first *PLA as Organization* volume. This expansion was clearly required to accommodate the expansion of the missile force since publication of the first volume. Because the number of missile bases has stayed the same, this means PLASAF has adjusted the original “3-3” organizational structure that was created for command and control (C2) and span of control purposes.
- Another important change was the elevation of the Commander of Second Artillery to membership in the CMC along with the PLAN and PLAAF Commanders in 2004, which reflected the growing importance and institutional standing of Second Artillery (and the PLAN and PLAAF) as well as broader PLA efforts to promote improved “jointness.”
- Still another important organizational development since the publication of the first *PLA as Organization* volume was the establishment of Second Artillery's Equipment Research Academy (装备研究院) in 2004, which was presumably intended to better organize and manage equipment research and related activities in support of PLASAF.
- The growing availability of open source information has also shed some light on previously highly opaque aspects of Second Artillery organization, including nuclear warhead storage and transportation and PLASAF wartime organization.
- Looking ahead, future developments will likely result in further organizational changes. These developments could include the establishment of additional nuclear and conventional missile force brigades. Specifically, as for future nuclear missile force developments, China is highly likely to deploy the forces it perceives as required to ensure it will have an assured retaliation capability, perhaps including road-mobile ICBMs with multiple independently targetable reentry vehicles (MIRVs), but China is not likely to “rush to parity” with the United States and Russia. With regard to the continued modernization of the conventional missile force, the PLASAF is likely to continue extending the power and reach of its conventional precision strike capabilities.
- These developments will have important implications in a number of areas, including future arms control negotiations beyond the New Strategic Arms Reduction Treaty (New START). Technological and doctrinal developments together are also likely to create potentially serious escalation management challenges in the event of a regional crisis or conflict.

- They will also shape the future organization of Second Artillery, as will the growing importance of space-based ISR and unmanned aerial vehicles (UAVs), and the possibility that Second Artillery may become responsible for new missions, such as computer network attack and counter-space operations.

Organization of the Study

The remainder of this chapter is organized as follows. Part two offers an overview of key research sources. Part three presents a brief overview of China's nuclear policy and strategy and Second Artillery's current missile force structure in order to provide broader context for understanding the PLASAF as an organization. Part four addresses Second Artillery's organizational structure. Part five explores possible future developments in the organization of the PLASAF.

Research Sources

This section offers an overview of some of the Chinese-language primary sources that offer insight into Second Artillery strategy, doctrine, and organization. The development of China's missile force is among the more secretive aspects of a military modernization program that outside observers have criticized for its lack of transparency, but a growing array of Chinese military publications are shedding new light on topics such as missile force modernization, strategy and doctrine, and operations. Some of these are broader studies on strategy or campaigns that include sections on the Second Artillery or related missile force topics, such as *Science of Strategy* (there are three different versions—a 1987 version by the PLA's National Defense University (NDU), a 1999 version by PLA NDU,¹⁸ and a 2001 version by the PLA's Academy of Military Science (AMS)¹⁹), *Science of Campaigns* (there are two editions—one published in 2000²⁰ and another in 2006²¹), and *Campaign Theory Study Guide* (published in 2001).²²

Additionally, in recent years, a growing variety of Chinese primary source materials that focus on missile force issues have become available to Western scholars. Indeed, this study draws on a wide variety of Chinese-language sources, including several books that focus on missile force operations and deterrence issues and offer new insights into Chinese nuclear and conventional missile force strategy. The most noteworthy of these books is *Science of Second Artillery Campaigns* (第二炮兵战役学), an authoritative book on missile force strategy and operations published by the Second Artillery Force.²³ Another valuable source that addresses missile force issues is *Intimidation Warfare: A Comprehensive Discussion of Missile Deterrence*, written by

¹⁸ Wang Wenrong, ed., *Science of Strategy* (战略学), Beijing: National Defense University Press, 1999.

¹⁹ Peng Guangqian and Yao Youzhi, eds. *Science of Strategy* (战略学), Beijing, China: Military Science Press, 2001.

²⁰ Wang Hongqing and Zhang Xingye, eds., *Science of Campaigns* (战役学), Beijing: National Defense University Press, May 2000

²¹ Zhang Yuliang, ed., *Science of Campaigns* (战役学), Beijing: National Defense University Press, 2006.

²² Xue Xinglin, ed., *Campaign Theory Study Guide* (战役理论学习指南), Beijing: National Defense University Press, 2001.

²³ People's Liberation Army Second Artillery Corps, *Science of Second Artillery Campaigns* (第二炮兵战役学), Beijing: PLA Press, 2004.

Zhao Xijun, a former deputy commander of the Second Artillery Force.²⁴ Still another is *Glorious Era: Looking Back on Development and Advances of the Second Artillery in the Period of Reform and Opening*, a volume edited by the Second Artillery's Political Department that chronicles the development of the missile force over the past three decades and features chapters written by a number of Second Artillery officers.²⁵ These three books in particular offer a considerable amount of insight into organizational issues.

The chapter also draws on articles from Chinese military journals like *China Military Science* (中国军事科学) and *Military Art* (军事学术), and official military newspapers like *PLA Daily* (解放军报) and the Second Artillery's newspaper, the title of which is usually translated as *Rocket Force News* (火箭兵报).²⁶ In addition to these Chinese language publications, the chapter draws on unclassified U.S. government reports on the Chinese military and declassified U.S. government documents on Chinese nuclear and missile developments, as well as open source analysis of organizational issues based on a wide variety of Chinese sources and publicly available commercial satellite imagery.

Policy, Strategy, and Force Structure

Before turning to the organization and force structure of the PLASAF, it is necessary to consider China's nuclear policy and strategy and nuclear and conventional missile force structure, which have shaped the evolution of the PLASAF as an organization since its establishment in 1966. China's approach to nuclear policy and strategy has been relatively consistent since its first nuclear test in 1964, though it was not clearly articulated for many years, even as China worked toward the development of the assured retaliation capability it desired to deter potential adversaries, principally the Soviet Union and the United States, from using nuclear weapons against China or coercing China with nuclear threats.

China's National Defense 2006 provided the first official explanation of China's nuclear policy and strategy. The document summarized the key elements of China's approach to nuclear weapons as follows:

China's nuclear strategy is subject to the state's nuclear policy and military strategy. Its fundamental goal is to deter other countries from using or threatening to use nuclear weapons against China. China remains firmly committed to the policy of no first use of nuclear weapons at any time and under any circumstances. It unconditionally undertakes not to use or threaten to use nuclear weapons against non-nuclear-weapon states or nuclear-weapon-free zones, and stands for the comprehensive prohibition and complete elimination of nuclear weapons.

²⁴ Zhao Xijun, *Intimidation Warfare: A Comprehensive Discussion of Missile Deterrence* (慑战--导弹威慑纵横谈) Beijing: National Defense University Press, May 2005. Among other topics, Zhao provides extensive discussions of a number of issues related to deterrence and escalation control.

²⁵ Second Artillery Political Department, ed., "Glorious Era: Looking Back on Development and Advances of the Second Artillery in the Period of Reform and Opening," (辉煌年代: 回顾在改革开放中发展前进的第二炮兵), Zhongyang Wenxian Publishing, 2008.

²⁶ PLASAF's newspaper, which is published four times a week, does not have an English title, even though the PLAAF's newspaper now has *Air Force News* (空军报) in English on the cover. Furthermore, since around 2008, *Rocket Force News* is no longer for internal use only. It is available for subscription through China's postal system.

China upholds the principles of counterattack in self-defense and limited development of nuclear weapons, and aims at building a lean and effective nuclear force capable of meeting national security needs. It endeavors to ensure the security and reliability of its nuclear weapons and maintains a credible nuclear deterrent force. China's nuclear force is under the direct command of the Central Military Commission (CMC). China exercises great restraint in developing its nuclear force. It has never entered into and will never enter into a nuclear arms race with any other country.

Although it represented the first official articulation of China's nuclear policy and strategy, the content reflected a longstanding approach to these issues. Indeed, many of the main aspects of the nuclear policy and strategy outlined in the *China's National Defense 2006*—including its emphasis on deterrence of nuclear attack, no first use of nuclear weapons, highly centralized command and control, and a nuclear force that is lean and effective—can be traced to earlier Chinese military publications.

One of the most important of these is the 1987 edition of *Science of Strategy*, which states, “China's nuclear strategy is defensive in nature, but if an enemy is first to use nuclear weapons, China will resolutely implement a nuclear counter-strike and carry out nuclear retaliation.”²⁷ Furthermore, the 1987 edition of *Science of Strategy* outlines the mission of the nuclear missile force as follows:

In peacetime, the mission of the Second Artillery is to bring nuclear deterrence into play, so as to deter enemies from launching a nuclear war against China, and to support China's peaceful foreign policy....in wartime, the strategic mission is to prevent conventional war from escalating into nuclear war, and to contain the escalation of nuclear war; and—if China suffers the enemy's nuclear attack—to conduct a nuclear counter-attack, striking the enemy's strategic targets and weakening its war potential and strategic attack forces.²⁸

Accordingly, the “basic guiding thought” of the Second Artillery includes principles such as “centralized command,” “striking after the enemy has struck,” “close protection,” and “key-point counterstrikes.”²⁹

Perhaps most importantly, according to the 1987 edition of *Science of Strategy*, “China's nuclear counterstrike must take effectiveness (有效性) as the foundation.” Furthermore, “In order to continuously increase the effectiveness of nuclear counterattack capability, it is necessary to continuously move toward mobile launch and miniaturization developments, further increase the survivability of the strategic missiles, improve their ability to penetrate and their accuracy, and appropriately increase the number of missiles and launch units, and improve operational command and support systems.”³⁰

²⁷ *The Science of Strategy*, 1987, p. 237.

²⁸ *Ibid.*, p. 115.

²⁹ *Ibid.*, p. 115.

³⁰ *Ibid.*, p. 116.

Subsequently, a variety of authoritative publications on missile-force campaigns and nuclear deterrence have shed further light on China's nuclear strategy.³¹ For example, Peng Guangqian and Yao Youzhi, the editors of the 2001 *Science of Strategy*, published by the AMS, divide nuclear deterrence strategies and postures into three categories: "maximum nuclear deterrence," "minimum nuclear deterrence," and "medium strength nuclear deterrence" (中等强度核威慑). Editors Peng Guangqian and Yao Youzhi indicate that "medium strength nuclear deterrence" requires "'sufficient and effective' nuclear strike force to threaten an opponent by imposing on him unbearable destruction, to a certain extent, so as to attain one's deterrent objective."³² China's pursuit of "lean and effective" nuclear forces, which is intended to support an assured retaliation capability that must evolve in response to changes in the offensive and defensive capabilities of potential adversaries, appears most similar to the concept of "medium strength nuclear deterrence."³³

These newly available sources also address the types of enemy actions China believes its nuclear capability can help deter. First and foremost, official publications make it clear that the main role for China's nuclear weapons is to deter an enemy from launching a nuclear attack or attempting to coerce or intimidate China with nuclear threats. Former Second Artillery Deputy Commander Zhao Xijun (1996-2004) states that the strategic missile force in particular is a "strong shield" for maintaining national security. It deters other nuclear powers from threatening to strike China with nuclear weapons. According to Zhao, "Anyone who wants to conduct a nuclear strike on China must also sustain a nuclear strike. China has limited strategic missiles, but the consequences of nuclear retaliation are still strong enough to ensure that the enemy would lose more than it would gain."³⁴ The strategic missile force is also an effective means to prevent wars from breaking out. The major powers often try to threaten or coerce other countries, but they are very cautious about threatening countries that are armed with nuclear weapons. The strategic missile force is also "an important weight in containing the escalation of war."³⁵

It is important to note that Chinese doctrinal publications like *Science of Second Artillery Campaigns* continue to reflect the official No First Use (NFU) policy, as outlined in other books, articles, and official documents like the biennial *China's National Defense*, in that they assume the Second Artillery nuclear forces would launch their weapons only after an enemy first strike. For example, *Science of Second Artillery Campaigns* indicates that Chinese missile forces would have to conduct nuclear counterstrikes after suffering heavy damage from an enemy nuclear attack.³⁶ Yet these sources suggest that Chinese strategists expect nuclear deterrence not only to prevent an enemy from using nuclear weapons against China, but also to deter certain types of strategic conventional attacks. For example, Zhao suggests that China's nuclear retaliation

³¹ These include Wang and Zhang, *The Science of Campaigns*; Xue, *Campaign Theory Study Guide*; and Zhang, *Science of Campaigns*.

³² Peng and Yao, *The Science of Strategy*, p. 235.

³³ Indeed, Fravel and Medeiros note that "This definition—especially the explicit reference to the concepts of sufficiency and effectiveness—strongly resembles PLA descriptions of China's own nuclear strategy and is consistent with the concept of deterrence through assured retaliation." See Fravel and Medeiros, "China's Search for Assured Retaliation," p. 78.

³⁴ Zhao, *Intimidation Warfare*, p. 30-31.

³⁵ Zhao, *Intimidation Warfare*, p. 31.

³⁶ *Science of Second Artillery Campaigns*, p. 59.

capability may also deter the enemy from carrying out conventional strikes that could raise the risks of nuclear escalation.³⁷

The PLA's *Science of Second Artillery Campaigns* and other sources indicate that in a PLA joint campaign against a nuclear-armed adversary, the Second Artillery's nuclear missile force would likely be expected to conduct nuclear deterrence operations as a backstop to support conventional missile strikes. In such a conflict, China expects that missile force operations would take place under conditions that may involve adversary nuclear threats against missile units. As *Science of Second Artillery Campaigns* puts it, one of the key characteristics of Second Artillery campaigns is that in future informatized wars, the Second Artillery will "conduct operations under nuclear or nuclear deterrence conditions."³⁸ As a result, according to *Intimidation Warfare*, because future wars will involve conventional operations under nuclear deterrence conditions, nuclear missile force deterrence actions will have a major influence on actual combat operations.³⁹

Furthermore, according to the authors of *Science of Second Artillery Campaigns*, because future joint campaigns will be part of conventional local wars that take place under nuclear deterrence conditions, they "will necessarily involve the deterrence activities of the Second Artillery's nuclear missile units."⁴⁰ Under such circumstances, the Second Artillery's nuclear missile force will serve as a "powerful backup supporting conventional strength" (支持常规力量的坚强后盾).⁴¹ Of course, this does not necessarily mean China would seriously consider nuclear escalation in response to conventional threats, but it does suggest that Beijing would rely on its nuclear retaliatory capability to constrain an adversary's options. Specifically, according to the authors of *Science of Second Artillery Campaigns*, "In local wars under informatized conditions, simply by moderately revealing nuclear strength, it is possible to flexibly use many types of deterrence methods; when the enemy uses informatized conventional air raids to attack us, they cannot help but to prudently consider the possibility that they might pay a price that would be very difficult to bear, thus achieving the objective of supporting conventional operations."⁴² This illustrates one of the ways in which the editors of the volume view nuclear weapons as a "backstop to support conventional operations."⁴³

The force structure of Second Artillery is another key factor that shapes its organization. Second Artillery brigades are equipped with either nuclear or conventional missiles. China classifies Second Artillery's ballistic missiles according to their ranges. The categories, which differ somewhat from the typical U.S. classifications of short, medium, intermediate, and intercontinental, are as follows:

- Short-range (近程; less than 1,000km)

³⁷ Zhao, *Intimidation Warfare*, p. 31. See also *Science of Second Artillery Campaigns*, p. 273-274.

³⁸ *Science of Second Artillery Campaigns*, p. 59.

³⁹ Zhao, *Intimidation Warfare*, p. 93.

⁴⁰ *Science of Second Artillery Campaigns*, p. 160.

⁴¹ *Science of Second Artillery Campaigns*, p. 122. At the same time, they must ensure their survival so that they can prepare to carry out nuclear counterstrikes if ordered to do so.

⁴² *Science of Second Artillery Campaigns*, p. 274.

⁴³ *Ibid*, p. 273.

- Medium/intermediate range (中程; 1,000-3,000km)
- Long-range (远程; 3,000-8,000km)
- Intercontinental (洲际; more than 8,000km).⁴⁴

The “basic firepower unit” (基本火力单位) for the nuclear force appears to be the launch battalion. For the conventional missile force, it appears to be the launch company, though occasional mention of the launch platoon in Chinese military periodicals compels at least a consideration of the latter as well.⁴⁵

Second Artillery’s conventional missile force has grown rapidly since its inception to enable China to implement its concepts for employing it for deterrence, intimidation, and conventional firepower strike operations. Today, China’s rapidly expanding conventional ballistic missile force includes DF-15 (CSS-6) and DF-11 (CSS-7) SRBMs and DF-21 (CSS-5) MRBMs. China has deployed the DH-10 LACM to enhance the PLA’s regional precision strike capabilities. China is also developing and deploying an anti-ship ballistic missile (ASBM) based on a variant of the DF-21 (CSS-5) MRBM. Beyond these capabilities, Taiwan officials have stated publicly that China is deploying the new DF-16 ballistic missile, with a range of about 1,000-1,500km.⁴⁶ In addition, PRC media reports indicate that China is developing another conventional missile with a range of 4,000km, which would enable Second Artillery to strike Guam with conventional weapons.⁴⁷

Backstopping the PLA’s growing arsenal of short-range and theater conventional missiles are its theater and strategic nuclear missile forces, which provide the ultimate escalatory or counter-escalatory threat. Beijing is modernizing these forces to enhance their survivability, increase their striking power, and counter missile defense developments. China currently maintains the DF-3 (CSS-2) IRBM and DF-21 and DF-21A (CSS-5 Mod 1 and CSS-5 Mod 2) MRBMs for theater nuclear deterrence missions. The PRC’s intercontinental nuclear ballistic missile force consists of limited-range DF-4 (CSS-3) ICBMs, silo-based DF-5 (CSS-4 Mod 2) ICBMs, and the recently deployed road-mobile DF-31 (CSS-10 Mod 1) and DF-31A (CSS-10 Mod 2) ICBMs. Some reports indicate that a new mobile ICBM, possibly capable of carrying multiple independently targetable reentry vehicles (MIRVs), may also be under development.⁴⁸

Organization of Second Artillery Force

Drawing on a variety of open sources, including previously published work by Western scholars and Chinese language media reports, this section presents an overview of the organizational structure of the Second Artillery Force, including its headquarters, bases, brigades, and other subordinate units, and academic and research institutions.

⁴⁴ Allen and Kivlehan, “Implementing PLA Second Artillery Doctrinal Reforms,” p. 170-171.

⁴⁵ Ibid, p. 172.

⁴⁶ For an overview of legislative testimony about the new missile and coverage of the statement in Taiwan’s news media, see Russell Hsiao, “Taiwan’s Intelligence Chief Warns about the PLA’s Growing Strategic Weapon Systems,” *China Brief* Vol. 11, No. 5 (March 25, 2011).

⁴⁷ Zhang Han and Huang Jingjing, “New Missile ‘Ready by 2015,’” *Global Times*, February 18, 2011.

⁴⁸ *Military and Security Developments Involving the People’s Republic of China 2010*, p. 2.

Before considering each of these parts of the Second Artillery, however, it is necessary to briefly consider the Second Artillery in relation to the rest of the PLA. As Ken Allen and Maryanne Kivlehan have pointed out, Second Artillery is not a service, but “an independent branch that is considered equal to the three services [i.e., Army, Navy, and Air Force]” (相当与军种的独立兵种).⁴⁹ Further underscoring Second Artillery’s equivalent status, the Commander of Second Artillery is now a member of the CMC, having been added along with the PLAN and PLAAF Commanders in 2004 (see below for a brief biography of Second Artillery’s current commander, General Wei Fenghe). However, according to Allen and Kivlehan, although Second Artillery is equal to the three services, its command structure is somewhat different than that of the PLAN and PLAAF. As they observe, PLAN and PLAAF units are under the dual leadership of their respective service headquarters and the MR in which they are stationed. In contrast, Second Artillery “implements what has been referred to as vertical command” (垂直指挥), which appears to indicate that in comparison with the PLAN and PLAAF, Second Artillery forces are more strictly under the leadership of the General Staff Department (GSD) and CMC as opposed to the MR authorities in the areas in which they are located.⁵⁰

Leadership of PLASAF

Second Artillery’s most important leaders are its commander and political commissar. The current commander of Second Artillery Force is General Wei Fenghe (魏凤和) and its political commissar is General Zhang Haiyang (张海阳). A brief biographical profile of each is provided below:

Wei Fenghe, PLASAF Commander

Wei Fenghe was appointed Second Artillery’s 9th commander in October 2012 just before the 18th Party Congress began in November. Like his predecessor, outgoing PLASAF commander General Jing Zhiyuan, Wei hails from Shandong Province (specifically, from Chiping County of Liaocheng City). He joined the PLA as an enlisted member in 1970 at 16 years of age, joined the Chinese Communist Party (CCP) in January 1972, and has served in Second Artillery for his entire 40-year military career. Shortly after Wei’s October 2012 appointment to the CMC, he was promoted from lieutenant general to general in a special ceremony presided over by newly appointed CMC Chairman Xi Jinping.⁵¹ Wei had received his second star in late December 2010, upon his appointment as one of the five Deputy Chiefs of the General Staff (DCOGS). He was the first Second Artillery officer to serve as a deputy in any of the four General Departments, in this case Deputy Chief of the General Staff (副总参谋长; military region leader grade) and member (委员) of the GSD Party Committee (总参谋部党委), and was likely placed there at

⁴⁹ Allen and Kivlehan, “Implementing PLA Second Artillery Doctrinal Reforms,” p. 167. Allen and Kivlehan cite Qian Haihao, ed., *Course Material For The Study Of Military Organizational Structures* (军队组织编制学教程), Beijing, Academy of Military Science Press, March 2001, p. 75, and *Chinese Military Encyclopedia* (中国军事百科全书), Beijing, Academy of Military Science Publishers, July 1997, Volume 2, p. 348.

⁵⁰ Allen and Kivlehan, “Implementing PLA Second Artillery Doctrinal Reforms,” p. 168.

⁵¹ See “Xi Jinping Promotes PLA General,” Xinhua, November 23, 2012, http://news.xinhuanet.com/english/china/2012-11/23/c_131994985.htm. This action brought all CMC members up to the rank of full general. The timing and process—promotion of the lone LTG to full general about one week after the Party Congress by the newly appointed Chairman (or re-appointed Chairman in 2007)—mirrors the 2007 promotion of Chang Wanquan to full general after he was elevated to the CMC as General Armament Department Director.

least in part so he could have the grade of military region leader in order to be able to move up to the CMC member grade once he became commander of PLASAF. Of note, no Second Artillery officer replaced Wei as a DCOGS.⁵²

Zhang Haiyang, PLASAF Political Commissar

Zhang Haiyang was appointed political commissar of PLASAF in December 2009. He was born in July 1949 in Pingjiang County, in Hunan Province's Yueyang (Prefecture-level) City. He joined the PLA in February 1969 (CCP in November 1969). Zhang will continue to serve as political commissar of PLASAF under newly appointed commander Wei Fenghe.⁵³

Organizational Structure of PLASAF

Second Artillery has six launch-related organizational levels, as well as support regiments, battalions, companies, and platoons:

- Second Artillery Headquarters (二炮)
- Missile bases (导弹基地)
- Missile brigades (导弹旅)
- Launch battalions (发射营)
- Launch companies (发射连)
- Launch platoons (发射排)

It should be noted that company- and platoon-level entities are sometimes referred to as launch fendui (发射分队).⁵⁴ The following table offers a layout of the aforementioned six organizational levels along with their grades:

⁵² Sources for this biography include the following: <http://baike.baidu.com/view/1551471.htm> accessed on 16 November 2012; http://blog.sina.com.cn/s/blog_628e37ab0100nw7u.html, accessed 15 November 2012; <http://news.qq.com/a/20110115/001044.htm>, accessed 15 November 2012; <http://news.sina.com.cn/s/2011-01-09/050321784137.shtml>, accessed 15 November 2012.

⁵³ Sources for this biography include the following: <http://news.iqilu.com/china/gedi/2009/1230/152934.shtml>, accessed 20 July 2012; <http://gzcx020.blog.163.com/blog/static/105834761201011152440233/>, accessed 15 November 2012; and <http://baike.baidu.com/view/467652.htm>, accessed 15 November 2012.

⁵⁴ Allen and Kivlehan, "Implementing PLA Second Artillery Doctrinal Reforms," p. 171. See Introduction for a more detailed discussion of "分队".

Table 1: The Organizational Levels and Grades of Second Artillery

<i>Grade</i>	<i>Primary Rank</i>	<i>Secondary Rank</i>	<i>Unit</i>	<i>Unit (Chinese)</i>
CMC Chairman	Not Applicable			
CMC Vice Chairman	GEN/ADM			
CMC Member	GEN/ADM		Commander	
Military Region Leader	GEN/ADM	LTG/VADM	Political Commander	第二炮兵
Military Region Deputy Leader	LTG/VADM	MG/RADM		
Corp Leader	MG/RADM	LTG/VADM	Missile Base	导弹基地
Corps Deputy Leader	MG/RADM	SCOL/SCAPT		
Division Leader	SCOL/SCAPT	MG/RADM		
Division Deputy Leader	COL/CAPT	SCOL/SCAPT		
Brigade Leader			Missile Brigade	导弹旅
Regiment Leader	COL/CAPT	LTC/CDR		
Brigade Deputy Leader				
Regiment Deputy Leader	LTC/CDR	MAJ/LCDR		
Battalion Leader	MAJ/LCDR	LTC/CDR	Launch Battalion	发射营
Battalion Deputy Leader	CAPT/LT	MAJ/LCDR		
Company Leader	CPT/LT	1LT/LTJG	Launch Company	发射连
Company Deputy Leader	1LT/LTJG	CPT/LT		
Platoon Leader	2LT/ENS	1LT/LTJG	Launch Platoon	发射排

The following sections provide a more detailed discussion of Second Artillery’s organization at various levels, from Second Artillery Headquarters down to lower-level units.

Second Artillery Headquarters

The Second Artillery Headquarters Department oversees operational planning, operational support, and the force’s command and control system. The Headquarters Department is overseen by the Second Artillery Chief of Staff and from three to five Deputy Chiefs of Staff. Between 2010 and 2012, Wei Fenghe, a former Second Artillery Chief of Staff who was appointed as PLASAF’s new commander, served as one of five GSD Deputy Chiefs of Staff.⁵⁵ Specific

⁵⁵ The current Second Artillery Chief of Staff is the first to have emerged from the force’s conventional missile corps.

Headquarters Department responsibilities include long range planning, intelligence and surveillance, training, nuclear safety and control, engineering, electronic warfare, communications, weather, nuclear, biological, and chemical (NBC) defense, and possibly computer network operations in the future.

Second Artillery Headquarters is located in Qinghe, north of Beijing, on the way to the Badaling section of the Great Wall.⁵⁶ According to Allen and Kivlehan, it is a military region leader-grade organization (正大军区职). Although the political commissar is the same grade as the headquarters, as noted above, the commander has been a CMC member-grade officer since 2004.⁵⁷ Second Artillery Headquarters has four first-level departments, the Headquarters Department (司令部), Political Department (政治部), Logistics Department (后勤部), and Equipment Department (装备部).

In addition, PLASAF Security Committee (二炮保密委员会) and PLASAF Security Committee General Office (二炮保密办) appear to be directly subordinate to PLASAF Headquarters. (See the Introduction chapter for further information on PLA Security Committees.) Second Artillery's Security Committee appears to be directed by a Deputy Commander, with the Political Department Director serving concurrently as the Security Committee's deputy director.⁵⁸ PLASAF also has Security Committees and Security Committee General Offices at lower levels, including Second Artillery Bases.⁵⁹ This is in keeping with PLA-wide practice. Accordingly, although available information about Second Artillery's Security Committees and General Offices is limited, it can be presumed that the functions of these organizations within PLASAF mirror those of other such organizations throughout the PLA.⁶⁰ Within the PLA, security or secrecy work (军队保密工作) includes promulgation of policies, laws, and regulations, management of security education, and other duties related to ensuring the protection of classified materials. Security committees at every level have general offices (办公室) charged with managing the committee's daily affairs.

Headquarters Department (司令部)

The Headquarters Department is a military region deputy leader-grade (副大军区职) organization; its director – the chief of staff – is a military region deputy leader-grade officer. The chief of staff can therefore be a lieutenant general (primary) or major general (secondary). The Headquarters Department hosts at least the following second-level (二及部) departments:

⁵⁶ Stokes, *China's Strategic Modernization*, p. 93-94, 107.

⁵⁷ Allen and Kivlehan, "Implementing PLA Second Artillery Doctrinal Reforms," p. 205.

⁵⁸ See, for example, Kuang Bin, "Second Artillery Security Committee Convenes Meeting to Implement Spirit of PLA Security Committee Meeting (二炮召开保密委员会会议贯彻军保委会议精神)," *Security Work* (保密工作), 2006, No. 1, p. 15, <http://lib.cqvip.com/qk/80914X/200601/21074170.html>.

⁵⁹ For a reference to an unidentified PLASAF Base's Security Committee, see "A Certain Second Artillery Base's 27 Rules Spawn 'Network Security Guardians (第二炮兵某基地 27 条细则催生"网络安全卫士")," *PLA Daily* (解放军报), March 31, 2007, www.chinamil.com.cn/site1/xwpdxw/2007-03/31/content_778423.htm.

⁶⁰ As Ken Allen points out in the introduction to this volume, "Every PLA organization at the regiment and above level has a Security Committee (保密委员会), which is responsible to that level's Party Committee and the next higher level's Security Committee." As Allen notes, this is sometimes translated as Secrecy Committee.

- Political Department (政治部)
- Operations Department (作战部)
- Communications Department (通信部)⁶¹
- Engineering Department (工程部)
- Training Department (军训部)
- Military Affairs Department (军务部)
- Directly Subordinate Work Department (直工部).

Gill, et. al. note that an Intelligence Department (情报部) is also likely a second-level department under Second Artillery's Headquarters Department; other directly subordinate units under the Headquarters Department reportedly include a surveying and mapping group, computer center, weather center, and Scientific Research Division (科研处).⁶² The Political Department under the Headquarters Department is a second-level department (e.g., division leader-grade) and the director is a division leader-grade officer with the rank of senior colonel (primary) or major general (secondary).

The Headquarters Department also includes a second-level Nuclear Security and Control Bureau (核安全控制局) that likely coordinates with civilian nuclear regulatory agencies within China.⁶³ The Headquarters Department's second-level Technical Reconnaissance Bureau most likely provides signals intelligence support to the force's operational leadership and oversees a number of subordinate elements located throughout China.⁶⁴

Second Artillery Headquarters Department also oversees two engineering organizations responsible for tunneling of underground facilities and civil engineering: the 308 Engineering Command (工程指挥部) and the Engineering Technology Zongdui (工程技术总队).⁶⁵ Headquartered in Hanzhong, Shaanxi Province, the 308 Engineering Command is responsible for tunneling and launch site construction.⁶⁶ A GSD engineering brigade appears to also have been

⁶¹ PLASAF Communications Department has probably been renamed PLASAF Informatization Department, in line with the renaming of the equivalent departments in GSD and PLAAF.

⁶² Bates Gill, James Mulvenon, and Mark Stokes, "The Chinese Second Artillery Corps: Transition to Credible Deterrence," in James C. © and Andrew N.D. Yang, *The PLA as Organization: Reference Volume v1.0*, Santa Monica, CA: RAND, 2002, p. 510-586.

⁶³ For reference to the Nuclear Security and Control Bureau, see "Second Artillery NBC Units Offer Vaccinations to Prevent Epidemic After Disaster (二炮防化防疫分队确保大灾之后无大疫), *China Military Online*, May 30, 2008, at www.chinamil.com.cn/site1/xwpdxw/2008-05/30/content_1289669.htm.

⁶⁴ The Technical Reconnaissance Bureau is assigned the military cover designator of the 96669 Unit. Among various sources, see "Practice the Core Values of the Contemporary Revolutionary Soldier's Life 用生命践行当代革命军人核心价值观," *Renmin Ribao*, 31 October 2009. Accessed at http://paper.people.com.cn/rmrb/html/2009-10/31/content_372115.htm on 27 November 2012.

⁶⁵ Infrastructure work on the six missile bases and warhead storage complex began in the late 1960s and was completed by the end of the 1970s. In the early days of the Second Artillery, the engineering regiments were subordinate to the individual missile bases, with many of the original regiments incorporated into other units, transformed into PLA construction companies, or converted to operational launch brigades. Others were subordinated to a centralized 308 Engineering Command and Engineering Technology Zongdui. In the mid-1990s, the CMC approved the Second Artillery's plan for an expanded network of underground facilities.

⁶⁶ The command oversees four operational engineering regiments responsible for tunneling and other civil engineering functions, along with a training regiment.

re-subordinated to the 308 Engineering Group. Headquartered in the Luoyang suburb of Xujiaying, the Engineering Technology Zongdui is responsible for installation engineering, including ventilation for underground facilities and fixed communications. In addition to three installation regiments, the Engineering Technology Zongdui commands a communications engineering regiment responsible for installing fiber optic cable in support of a dedicated internal Second Artillery communications network.⁶⁷

Political Department (政治部)

The Political Department ensures the CCP remains firmly in control of the Second Artillery Force. In addition to overseeing the political commissar system, the Political Department oversees officer personnel issues,⁶⁸ distributes propaganda, and ensures discipline in accordance with party edicts. The Political Department is – like the Headquarters Department – a military region deputy leader-grade (副大军区职) organization – and its director (主任) is a military region deputy leader-grade officer. The director, like the chief of staff, can therefore be a lieutenant general (primary) or major general (secondary). The Political Department hosts at least the following second-level (二及部) departments:

- General Office (办公室);
- Cadre Department (干部部)
- Organization Department (组织部);
- Propaganda Department (宣传部);
- Security Department (保卫部);
- Culture Department (文化部)
- Discipline Inspection Committee (纪律委员会).

Gill, et. al. note that the Political Department also contains a “procurate” (检察院) and a court (法院) that at least, in part, oversee and investigate disciplinary matters throughout Second Artillery.⁶⁹

Logistics Department (后勤部)

The Logistics Department oversees a number of support functions, including budget and finance, material, medical, and transportation. A central depot north of Beijing stores non-mission essential supplies for the entire force.⁷⁰ The Logistics Department is a corps leader-grade (正军职) organization – one grade lower than the Headquarters and Political Departments. The director of the Logistics Department and the political commissar are both corps leader-grade

⁶⁷ Additional regiments are responsible for training and vehicle repair. All are located in Henan Province.

⁶⁸ Enlisted personnel issues are managed by the Headquarters Department’s Military Affairs Department.

⁶⁹ Bates Gill, James Mulvenon, and Mark Stokes, “The Chinese Second Artillery Corps: Transition to Credible Deterrence,” in James C. Mulvenon and Andrew N.D. Yang, *The PLA as Organization: Reference Volume v1.0*, Santa Monica, CA: RAND, 2002, p. 510-586.

⁷⁰ The 96628 Unit is the Second Artillery Logistics Department’s primary depot (某综合仓库). Located in the Western Hills, opposite side of the range from GSD Ops Center, the depot headquarters are in Sujiatuo Village (苏家坨镇). See “Experience in Personnel Education in the Second Artillery Logistics Department Integrated Depot (第二炮兵后勤部某综合仓库育人经验谈),” *China Youth Daily (中国青年报)*, 30 November 2000, accessed at www.chinayouthdaily.com.cn/gb/djysd/2000-11/30/content_120940.htm on 27 November 2012.

officers and can be either a major general (primary) or lieutenant general (secondary). The Logistics Department hosts at least the following second-level (二及部) and third-level (三级部) departments:

- Headquarters Department (司令部);
- Political Department (政治部);
- Finance Department, which includes the Finance Division (财务处) and Payroll Division (工薪处)
- Quartermaster, Materials, and Fuels Department (军需物资油料部)
- Health Department (卫生部)
- Transportation Department (军交运输部)
- Barracks Department (营房部)
- Audit Bureau (审计局).

The Second Artillery General Hospital (二炮总医院) is also directly subordinate to the Health Department of PLASAF Logistics Department.⁷¹

Equipment Department (装备部)

The Second Artillery Equipment Department oversees force structure planning and acquisition of warheads, delivery vehicles, critical components, and associated ground equipment. The Equipment Department appears to conduct nuclear force structure planning, with the CMC and CCP Central Committee Political Bureau (Politburo) having approval authority. The Equipment Department also oversees operational test and evaluation of new weapon systems. Nuclear warhead inventory requirements may be developed by the Equipment Department's General Planning Department, with the acquisition carried out by the Special Equipment Management Department. The Equipment Department is a corps-leader grade (正军职) organization like the Logistics Department and its director and political commissar are corps-leader grade officers with the rank of major general (primary) or lieutenant general (secondary). The Equipment Department hosts the following second- and third-level departments:

- Headquarters Department (司令部);
- Political Department (政治部)
- Management Department (管理部);
- Scientific Research Department (科研部);
- Procurement Department (订货部);
- Special Equipment Management Department (特装管理部);
- Site Management and Communications Department (which includes the Launch Site Management Division; 阵通部 and 阵地管理处, respectively);
- High Technology Office (高新技术办公室); and
- Metrology Station (计量总站).⁷²

⁷¹ Bates Gill, James Mulvenon, and Mark Stokes, "The Chinese Second Artillery Corps: Transition to Credible Deterrence," in James C. Mulvenon and Andrew N.D. Yang, *The PLA as Organization: Reference Volume v1.0*, Santa Monica, CA: RAND, 2002, p. 510-586.

Another important organization affiliated with the Second Artillery Equipment Department is the Second Artillery Science and Technology Committee (二炮科技委). The role of the Second Artillery S&T Committee presumably mirrors that of the GAD's S&T Committee, but with a focus on the requirements of the missile force. Like its counterparts, the Second Artillery S&T Committee appears to have a number of expert groups, such as the "Second Artillery S&T Committee Expert Group on Penetration" (二炮科技委突防专家组), which presumably focuses on topics related to penetrating the missile defense systems of potential adversaries. In addition, PLASAF Equipment Department oversees the Second Artillery Equipment Research Academy and the Military Representative Bureau (军事代表局) that oversees Second Artillery Military Representative Offices (军事代表室) throughout the defense industry.⁷³

The following table offers a leadership structure for each of the four first-level departments in Second Artillery that constitute Second Artillery Headquarters:

⁷² Ibid, , p. 510-586.

⁷³ Accessed at http://junshi.xilu.com/2010/0908/news_44_106709_3.html on 27 November 2012.

Table 2: Leadership Structure of PLASAF Headquarters

Grade	Primary Rank	Secondary Rank	Leaders	Headquarters Department	Political Department	Logistics Department	Equipment Department	Unit	Grade
CMC Chairman	Not Applicable								CMC Chairman
CMC Vice Chairman	GEN/ADM								CMC Vice Chairman
CMC Member	GEN/ADM		Commander						CMC Member
Military Region Leader	GEN/ADM	LTG/VADM	Political Commissar						Military Region Leader
Military Region Deputy Leader	LTG/VADM	MG/RADM		Chief of Staff	Director				Military Region Deputy Leader
Corp Leader	MG/RADM	LTG/VADM		Deputy Chiefs of Staff	Deputy Directors	Director	Director	BASE: Commander & POL COM	Corp Leader
Corps Deputy Leader	MG/RADM	SCOL/SCAPT				Deputy Directors	Deputy Directors		Corps Deputy Leader
Division Leader	SCOL/SCAPT	MG/RADM		Second-Level Departments	Second-Level Departments	Second-Level Departments	Second-Level Departments		Division Leader
Division Deputy Leader/Brigade Leader	COL/CAPT	SCOL/SCAPT						BRIGADE: Commander & POL COM	Division Deputy Leader/Brigade Leader
Regiment Leader/Brigade Deputy Leader	COL/CAPT	LTC/CDR							Regiment Leader/Brigade Deputy Leader
Regiment Deputy Leader	LTC/CDR	MAJ/LCDR							Regiment Deputy Leader
Battalion Leader	MAJ/LCDR	LTC/CDR						LAUNCH BATTALION: Commander & POLCOM	Battalion Leader
Battalion Deputy Leader	CAPT/LT	MAJ/LCDR							Battalion Deputy Leader
Company Leader	CPT/LT	1LT/LTJG						LAUNCH COMPANY: Commander & POL COL	Company Leader
Company Deputy Leader	1LT/LTJG	CPT/LT							Company Deputy Leader
Platoon Leader	2LT/ENS	1LT/LTJG						LAUNCH PLATOON: Commander & POL COM	Platoon Leader

Second Artillery's four departments oversee a number of direct reporting units that would provide support to an operational campaign. For example, a regiment-sized unit north of Beijing specializes in imagery and all-source intelligence, and would likely be deployed to a theater command center as the intelligence cell.⁷⁴ At least one and probably two electronic countermeasures (ECM) regiments would support the Second Artillery corps-level component commander within a Joint Theater Command.⁷⁵ The Second Artillery Technical Reconnaissance

⁷⁴ According to a former engineer, the 96637 Unit is located in Kangzhuang. Formerly known as the 80809 Imagery Group, the unit shifted its mission toward operations support in 2002. In addition to providing imagery for land attack cruise missile brigades, the unit is also said to carry out electronic reconnaissance, translation, and, in a crisis, battle damage assessment in direct support of strike operations. See, for example, Liu Feng and Wang Bingjun, "Second Artillery 96637 Unit Establishes 'Warrior Culture' (第二炮兵 96637 部队营造 '尚武' 文化), *Worker's Daily* (工人日报), 3 August 2006, accessed at <http://news.sina.com.cn/c/2006-08-03/01009640261s.shtml> on 27 November 2012.

⁷⁵ The primary Second Artillery ECM Regiment is the 96620 Unit, home-based in Dingxing and commanded by Col Li Changwei (李长伟). A newer regiment (96634 Unit) appears to have been formed in Nanchang.

Bureau is likely the service-level cryptologic authority and may engage in computer network operations.⁷⁶

Second Artillery Bases, Brigades, and Other Subordinate Units

Second Artillery has six operational missile bases, a warhead storage base, and a training base, which are corps leader-grade organizations. A Second Artillery missile base is a regionally focused corps-level organization that integrates the capabilities of launch brigades and support regiments under its purview. In a crisis, a missile base likely would form the core of the Second Artillery component for a Joint Theater Command. The commander and political commissar are corps leader-grade officers with the primary grade of major general and secondary rank of lieutenant general. The organizational structure at this level mirrors that of Second Artillery Headquarters in that each missile base has four first-level departments, including a Headquarters Department, Political Department, Logistics Department, and Equipment Department.⁷⁷ Each base has a varying number of subordinate missile brigades.

The commander and political commissar of a missile brigade are division deputy leader-grade officers. The internal organizational structure of a brigade is similar to that of Second Artillery Headquarters and the six missile bases in that each brigade has a Headquarters Department, Political Department, Logistics Department, and Equipment Department. Subordinate organizations include launch battalions (发射营), a communications subunit (通信分队), and a launch position management subunit (阵地管理分队).⁷⁸

Beyond this information on the internal organizational structure of brigades, there is also a considerable amount of open source data on the facilities that are typically associated with missile force brigades. In particular, Sean O'Connor's "IMINT & Analysis" blog offered a detailed description of Second Artillery brigade-level facilities in a 2010 posting. According to O'Connor, Second Artillery brigades maintain garrison facilities, underground facilities (UGFs), rail transfer points, and launch positions. Specifically, O'Connor's analysis of Google Earth imagery indicates that garrisons "typically contain administrative and support infrastructure for assigned personnel, and various garages for housing missile transporter erector launchers (TELS) and support equipment."⁷⁹ In addition, garrisons supporting road-mobile missile systems also feature "high-bay garages or other similar structures used for checkout of system components."⁸⁰ Second Artillery UGFs, which are located in close proximity to missile brigades, can perform several functions, such as serving as "staging areas for missile systems which have left garrison" or providing "storage for missiles and/or warheads."⁸¹ Rail transfer points likely associated with Second Artillery are located in close proximity to missile force garrisons "via roadway or connecting railspur," while launch sites may "contain a hardened concrete pad where the associated missile will be erected for launch."⁸²

⁷⁶ "Practice the Core Values of the Contemporary Revolutionary Soldier's Life."

⁷⁷ Allen and Kivlehan, "Implementing PLA Second Artillery Doctrinal Reforms," p. 170.

⁷⁸ Allen and Kivlehan, "Implementing PLA Second Artillery Doctrinal Reforms," p. 207.

⁷⁹ Sean O'Connor, "Dragon's Fire: The PLA's Second Artillery Corps," *IMINT & Analysis*, 26 June 2010, accessed at <http://geimint.blogspot.com/2009/04/dragons-fire-plas-2nd-artillery-corps.html> on 27 November 2012.

⁸⁰ Ibid.

⁸¹ Ibid.

⁸² Ibid.

Chinese military publications that discuss positions associated with missile force units provide data that elaborates on O'Connor's analysis. For example, *Campaign Theory Study Guide* (2002) indicates that conventional missile brigade operational positions (作战阵地) can be divided into basic (基本作战阵地) and emergency operational positions (应急作战阵地). For conventional missile brigades, operational positions typically include brigade command posts (旅指挥所), technical positions (i.e., central depots; “技术阵地” or “中心库”), readiness positions, transport sites, launch positions, and support element deployment zones.⁸³ Additionally, the brigade command post and the support element deployment zones are normally situated in locations that are convenient to transportation within the guided missile brigade operational area (导弹旅作战区域). Further, according to the same source, “the combat formation of the technical positions, readiness positions, and launch positions can be deployed to form different formations. Normally, technical positions (技术阵地) are in the rear, and launch positions (发射阵地) are in the front, with step-by-step extension (逐级前伸), and fan-shaped deployment (扇形展开).”⁸⁴

In addition to launch brigades, each base oversees five support regiments responsible for training, transportation, warhead and missile storage, vehicle repair and maintenance, and communications. The base training regiment is responsible for standardized training of new personnel, as well as coordinating deployment and live fire exercises, and other training activities. A technical service regiment responsible for secure transport of warheads, missiles, fuel, and components from base-level storage sites to launch brigade operating facilities.⁸⁵ Depots under each missile base, referred to as equipment inspection regiments, are responsible for storage and handling of nuclear and conventional warheads, missiles, associated sub-systems, and fuel.⁸⁶ Base-level repair and maintenance regiments, also referred to as repair factories (修配厂), ensure the readiness of launchers and other support vehicles. In this capacity, the regiment maintains a close relationship with original equipment manufacturers. Communications regiments link base headquarters elements, support regiments, and launch brigades.⁸⁷

Base 52 is unique in that it assigned a sixth support regiment responsible for conventional missile storage and handling. Since at least 1994, a specialized regiment reporting to Base 52 headquarters appears to store most SRBMs, related assemblies, and components at a hardened

⁸³ Bi Xinglin, ed., *Campaign Theory Study Guide* (战役理论学习指南), Beijing: National Defense University Press, 2002, p. 152.

⁸⁴ Ibid.

⁸⁵ Transportation regiments often are headquartered within easy reach of the equipment inspection regiment headquarters. Means of transportation include both rail and vehicular, as well as airlift in cases of extreme emergency. Transportation regiments oversee rail transfer facilities, which appear to be managed by a rail transport battalion. The regiments also appear to have dedicated communications and security surveillance networks.

⁸⁶ With most nuclear warheads centrally stored in the Taibai mountain area, equipment inspection regiments possess a minimal number of nuclear warheads at any one time. Battalions under the regiment manage at least three weapons storage and handling sites, with each having as many as seven subordinate facilities. A battalion oversees a security company, missile management company, and one or more site management companies. Missiles appear to be stored and handled separately from warheads. True unit designations of depot regiments are 901 Regiment (901 团) for 51 Base, 902 for 52 Base, and so on through the 906 Regiment (56 Base). See Mark Stokes, “China’s Nuclear Warhead Storage and Handling System,” *Project 2049 Occasional Paper*, March 2010, p. 3.

⁸⁷ *S&T Daily* reporting indicates regiments have a three hour rapid response requirement for emergency deployments. In addition to a dedicated Second Artillery fiber optic network, communications regiments also likely rely on satellite communications, including commercial systems such as Iridium and INMARSAT.

facility in Shangrao County, with annexes in the Qimen and Leping areas.⁸⁸ A specialized test and measurement unit subordinate to Second Artillery Equipment Department oversees elements that are collocated with Base 52 component depot facilities.⁸⁹ Other elements directly subordinate to a base headquarters include a vehicle battalion (汽车营), hospital (医院), command office (指挥室), weather office (气象室), chemical defense subunit (防化分队), engineering subunit (工程分队), survey and mapping subunit (测绘分队), computer subunit (诸元计算分队), control subunit (控制分队), camouflage subunit (伪装分队), reconnaissance subunit (侦察分队), technical testing subunit (技术测试分队), and electronic countermeasures subunit (电子对抗分队).⁹⁰

Mark Stokes, Sean O'Connor, and other analysts have identified the missile bases and a number of their subordinate missile brigades through thorough analysis of open source materials such as Chinese military newspapers, national and local Chinese media, postings on Chinese websites, and Google Earth imagery.⁹¹ The following is a list of the six missile bases and subordinate brigades and support regiments, based on the most recently published open source research. It should be noted that the relevant studies are at least a year or two old in most cases, meaning some of the information may be dated or may fail to account for more recent developments, as PLASAF units sometimes move to new locations and/or replace older missiles with newer and more capable models.⁹²

⁸⁸ The regiment, referred to as a "Missile Component Depot" (导弹器材仓库), is designated as the 96176 Unit. See Mark Stokes, "China's Nuclear Warhead Storage and Handling System," *Project 2049 Occasional Paper*, March 2010; and Su Haibin, "Focus on High Safety Standards for Subordinate Fuel Storage Support Units," *Studies on Basic Political Work*, December 2008, p. 65, accessed at www.cqvip.com/qk/81771X/200812/28752572.html on January 20, 2010. Su is from the 96176 Unit. Also see "Civil-Military Team Building Units Pays a Visit (军民共建单位来我局走访慰问)," 9 February 9 2010, accessed at www.jx-n-tax.gov.cn on 20 February 2010. According to a retired soldier previously assigned to the regiment, the Missile Component Depot has automated depot functions over the last few including installation of an enterprise resource management planning (ERP) system.

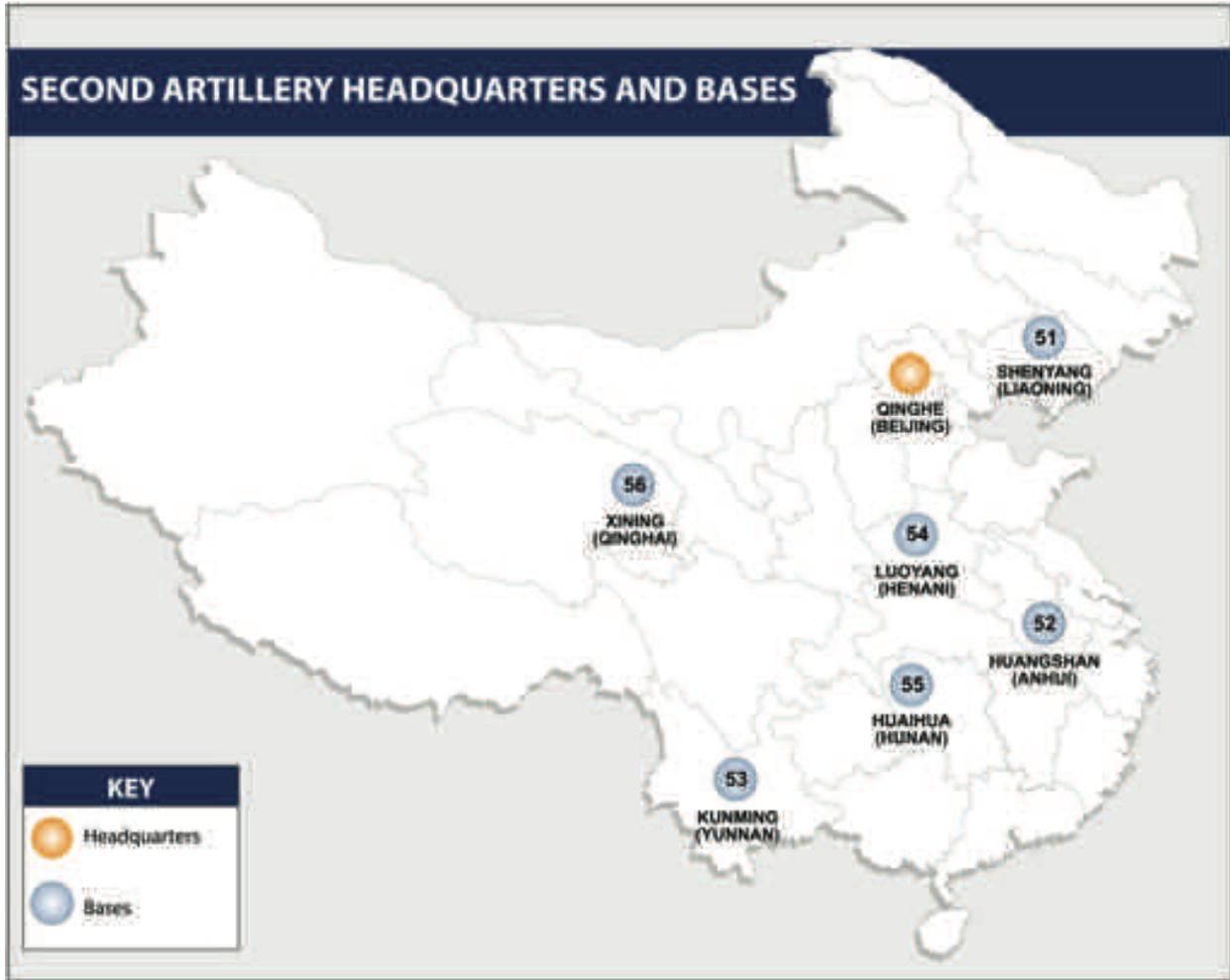
⁸⁹ Among various sources, see "Second Artillery Metrology Post Repairs 140 Missile Precision Devices Over Two Years (二炮计量站 2年维修 140余台现役导弹瞄准设备)," *PLA Daily (中国军网)*, 7 March 2010, accessed at <http://mil.news.sina.com.cn/2010-03-07/1240586122.html> on 16 May 2010.

⁹⁰ Allen and Kivlehan, "Implementing PLA Second Artillery Doctrinal Reforms," p. 206-207.

⁹¹ The relevant studies include: Mark A. Stokes, *China's Strategic Modernization: Implications for U.S. National Security*, Carlisle, PA: U.S. Army War College, Strategic Studies Institute, 1999, p. 93-95; Bates Gill, James Mulvenon, and Mark Stokes, "The Chinese Second Artillery Corps: Transition to Credible Deterrence," in Mulvenon and Yang, *The PLA as Organization: Reference Volume v1*, p. 510-586; Allen and Kivlehan-Wise, "Implementing Second Artillery Doctrinal Reforms," p. 159-220; O'Connor, "PLA Second Artillery Corps," ; Mark Stokes and Ian Easton, *Evolving Aerospace Trends in the Asia-Pacific Region: Implications for Stability in the Taiwan Strait and Beyond*, Project 2049 Institute, 27 May 2010, accessed at www.project2049.net on 27 November 2012; O'Connor, "Dragon's Fire: The PLA's Second Artillery Corps," ; Mark Stokes, "Expansion of China's Ballistic Missile Infrastructure Opposite Taiwan," *Asia Eye*, Project 2049 Institute, 18 April 2011, accessed at <http://blog.project2049.net/2011/04/expansion-of-chinas-ballistic-missile.html> on 27 November 2012; Mark Stokes and L.C. Russell Hsiao, "Spotlight on New Second Artillery ICBM Base Leadership," *Asia Eye*, Project 2049 Institute, 2 August 2011, accessed at <http://blog.project2049.net/2011/08/spotlight-on-new-second-artillery-icbm.html> on 27 November 2012; and Mark Stokes and L.C. Russell Hsiao, "New DF-31A ICBM Brigade in Hunan?" *Asia Eye*, Project 2049 Institute, 9 September 2011, accessed at <http://blog.project2049.net/2011/09/new-df-31a-icbm-brigade-in-hunan.html> on 27 November 2012.

⁹² Mark Stokes, "Second Artillery Unit and Leadership Report: 1st Quarter 2012," Project 2049 Institute, 21 February 21 2012.

Figure 1: Second Artillery Headquarters and Six Operational Missile Bases



Base 51

Base 51 was formally established in September 1964 in the area of Tonghua, Jilin Province. With headquarters moving to Shenyang in the early 1990s, Base 51 today consists of four confirmed brigades in northeastern China capable of delivering nuclear and conventional payloads against targets in Japan and South Korea. The commander is said to have a grade equivalent of a Deputy Corps leader, a half grade below commanders of 52, 54, 55, and 22 Bases.⁹³ Missile brigades subordinate to Base 51 are shown below in Table 3:

⁹³ Stokes, *China's Strategic Modernization*, p. 94.

Table 3: Missile Brigades Subordinate to Base 51⁹⁴

<i>TUD</i>	<i>MUCD</i>	<i>Location</i>	<i>Missile System</i>	<i>Additional Information</i>
806 Brigade	96111	Hancheng, Shaanxi Province (韩城市)	Nuclear MRBMs [126]	
810 Brigade	96113	Dengshahe, Dalian, Liaoning Province (大连市, 登沙河镇)	Nuclear IRBMs [127]	The brigade least covered by government-related media outlets; reportedly also the only remaining brigade outfitted with DF-3 nuclear IRBMs
816 Brigade	96115	Tonghua, Jilin Province (吉林省, 同化市)	Nuclear MRBMs [128]	Formerly, an experimental regiment established in 1984 to “facilitate the introduction of the DF-21.
822 Brigade	96117	Laiwu, Shandong Province (莱芜市)	Conventional MRBMs [129]	Reportedly equipped with conventional MRBMs.

Sources: Mark Stokes, “Second Artillery Unit and Leadership Report: 1st Quarter 2012,” Project 2049 Institute, February 21, 2012; Mark Stokes, “Expansion of China’s Ballistic Missile Infrastructure Opposite Taiwan,” Asia Eye, Project 2049 Institute, April 18, 2011; and Sean O’Connor, “Dragon’s Fire: The PLA’s Second Artillery Corps,” IMINT & Analysis, June 26, 2010.^{95 96 97 98}

Support regiments reportedly under the Base 51 are shown in Table 4:

⁹⁴ “TUD” stands for “True Unit Designator”; “MUCD” stands for “Military Unit Cover Designator”. Refer to the Introduction for a discussion on the meaning of and differences between the two.

⁹⁵ Stokes, “Expansion of China’s Ballistic Missile Infrastructure Opposite Taiwan.”

⁹⁶ O’Connor, “Dragon’s Fire: The PLA’s Second Artillery Corps.”

⁹⁷ Stokes, “Expansion of China’s Ballistic Missile Infrastructure Opposite Taiwan.”

⁹⁸ Ibid.

Table 4: Support Regiments Subordinate to Base 51

<i>MUCD</i>	<i>LOCATION</i>	<i>CLASSIFICATION</i>	<i>DESCRIPTION</i>
96121	Dawa County, Panjin, Liaoning Province (大洼县, 盘锦市)	Training	Provides instruction on equipment maintenance; hosts simulation facilities
96122	Tonghua, Jilin Province (通化市)	Transport	
96123	Guosong District, Tonghua, Jilin Province (果松镇)	Warhead	Also known as the 901 Regiment; hosts a technical service battalion with site management and missile management companies.
96124	Tonghua, Jilin Province (通化市)	Repair	
96125	Shenyang, Liaoning Province (沈阳市)	Communications	

Source: Mark Stokes, "Second Artillery Unit and Leadership Report: 1st Quarter 2012," Project 2049 Institute, February 21, 2012.

Base 52

With an operational planning focus on Taiwan, Base 52 is the largest and most powerful missile corps in the Second Artillery. Base 52 general headquarters oversees staff offices, at least two nuclear-capable MRBM brigades, at least five SRBM brigades, and six support regiments. A relatively new brigade possibly equipped with a new conventionally-capable MRBM variant has been established in northern Guangdong's Shaoguan City. Indications exist that a missile brigade formerly subordinate to the Nanjing Military Region and possibly equipped with UAVs has also been incorporated into Base 52.⁹⁹ Specifically, missile brigades reportedly subordinate to this base are listed below in Table 5:

⁹⁹ The 96180 Unit appears to be the designation of the Nanjing Military Region 1st Missile Brigade (73661 Unit), which was transferred to the Second Artillery in late 2010.

Table 5: Missile Brigades Subordinate to Base 52

<i>TUD</i>	<i>MUCD</i>	<i>LOCATION</i>	<i>MISSILE SYSTEM</i>	<i>ADDITIONAL INFORMATION</i>
807 Brigade	96161	Chizhou, Anhui Province (池州市)	Nuclear MRBMs	
811 Brigade	96163	Qimen, Anhui Province (黄山市, 祁门县)	Nuclear MRBMs	
815 Brigade	96165	Shangrao, Jiangxi Province (上饶市)	Conventional SRBMs	China's first conventional SRBM unit.
817 Brigade	96167	Yong'an, Fujian Province (永安市)	Conventional SRBMs	
818 Brigade	96169	Meizhou, Guangdong Province (梅州市)	Conventional SRBMs	
819 Brigade	96162	Gangzhou (广州市)	Conventional SRBMs	
820 Brigade	96164	Jinhua, Zhejiang Province (金华市)	Conventional SRBMs	

Sources: Mark Stokes, "Second Artillery Unit and Leadership Report: 1st Quarter 2012," Project 2049 Institute, February 21, 2012; Mark Stokes, "Expansion of China's Ballistic Missile Infrastructure Opposite Taiwan," Asia Eye, Project 2049 Institute, April 18, 2011; and Sean O'Connor, "Dragon's Fire: The PLA's Second Artillery Corps," IMINT & Analysis, June 26, 2010.

For support regiments reportedly under Base 52, see Table 6 below:

Table 6: Support Regiments Subordinate to PLASAF Base 52

<i>MUCD</i>	<i>LOCATION</i>	<i>CLASSIFICATION</i>	<i>DESCRIPTION</i>
96171	Jiangshan, Zhejiang Province (江山市)	Training	Primarily responsible for the training of new recruits in missile launch operations; unit depends heavily on simulation technology.
96172	Jingdezhen, Jiangxi Province (景德镇市)	Transport	The regiment's rail battalion supported a ten-day deployment of a brigade during live-fire training in northwestern China in 2010.
96173	Jingdezhen, Jiangxi Province (景德镇市)	Warhead	Also known as the 902 Regiment.
96174	Xiuning, Anhui Province (休宁县)	Repair	The regiment has been undergoing a transition in which its repair and maintenance capabilities are automated.
96175	Huizhou District, Huangshan, Anhui Province (黄山市, 徽州区)	Communications	The third battalion of the 96176 Regiment may be dedicated toward mobile satellite communications.
96176	Shangrao, Jiangxi Province (上饶市)	Component	A Second Artillery missile depot with a large inventory of SRBMs.
96180	Xianyou County, Putian, Fujian Province (莆田市, 仙游县)		

Source: Mark Stokes, "Second Artillery Unit and Leadership Report: 1st Quarter 2012," Project 2049 Institute, February 21, 2012.

Base 53

Headquartered in southwestern city of Kunming and equipped with the most diverse range of missile systems, Base 53 oversees at least three MRBM brigades and one LACM brigade. The commander of Base 53 has a grade equivalent to a Deputy Corps leader, although its status may have elevated to full corps leader equivalent. The LACM brigade, garrisoned in the area of Luzhai, Guizhou Province, may be preparing for a new variant.¹⁰⁰ Brigades equipped with DF-21/31 variants are centered in Yunnan province in the areas of Jianshui and Yuxi. A relatively new brigade in Guangdong Province appears to be equipped with the DF-21D ASBM.¹⁰¹ Base 53 may also support a Second Artillery force-wide training facility near Guiyang. Indications exist that a missile brigade formerly subordinate to the Guangzhou Military Region and possibly equipped with UAVs has also been incorporated into Base 53.¹⁰² Located in Kunming, Yunnan

¹⁰⁰ Accessed at www.chinamil.com.cn/jfjbmap/content/2010-12/07/content_45198.htm on 27 November 2012.

¹⁰¹ Available reporting indicates that a limited number of missiles, between 10 and 12, are available to the brigade and its subordinate battalions for training and familiarization.

¹⁰² The 808 Brigade had been based in the area of Chuxiong, and has relocated to Yuxi within the last two years. The brigade, previously equipped with the DF-21A, most likely is transitioning to a new missile variant, such as the DF-21C. Relocation of brigade often is linked with integration of new missile variant. New underground facilities appear to be constructed north of Yuxi.

Province, Base 53 could cover a variety of potential targets, including locations in India and Southeast Asia.¹⁰³

Missile brigades reportedly subordinate to Base 53 are listed below in Table 7:

Table 7: Missile Brigades Subordinate to Base 53

<i>TUD</i>	<i>MUCD</i>	<i>LOCATION</i>	<i>MISSILE SYSTEM</i>	<i>ADDITIONAL INFORMATION</i>
802 Brigade	96211	Jianshui County, Honghe Hani and Yi, Autonomous Prefecture, Yunnan Province (红河哈尼族彝族自治州, 建水县)	Nuclear MRBMs	
808 Brigade	96213	Chuxiong Autonomous Prefecture, Yunnan Province (楚雄彝族自治州)	Appears to be relocating to Yuxi and transitioning to a new missile variant, according to Mark Stokes	
821 Brigade	96215	Luzhai County, Liuzhou, Guangxi Province (柳州市, 鹿寨县)	Conventional LACMs	

Sources: Mark Stokes, “Second Artillery Unit and Leadership Report: 1st Quarter 2012,” Project 2049 Institute, February 21, 2012; Mark Stokes, “Expansion of China’s Ballistic Missile Infrastructure Opposite Taiwan,” Asia Eye, Project 2049 Institute, April 18, 2011; and Sean O’Connor, “Dragon’s Fire: The PLA’s Second Artillery Corps,” IMINT & Analysis, June 26, 2010.

Support regiments reportedly subordinate to Base 53 are listed below in Table 8:

¹⁰³ Stokes, *China’s Strategic Modernization*, p. 95.

Table 8: Support Regiments Subordinate to Base 53

<i>MUCD</i>	<i>LOCATION</i>	<i>CLASSIFICATION</i>	<i>DESCRIPTION</i>
96221	Chenggong County, Kunming, Yunnan Province (昆明市, 呈贡县)	Training	
96222	Chenggong County, Kunming, Yunnan Province (昆明市, 呈贡县)	Transport	
96223	Mi'le County, Honghe Hani and Yi Autonomous Prefecture, Yunnan Province (红河哈尼族彝族自治州, 弥勒县)	Warhead	
96224	Kunming, Yunnan Province (昆明市)	Repair	
96225	Dabanqiao, Kunming, Yunnan Province (昆明市, 大板桥镇)	Communications	
96217	Guiyang, Guizhou Province (贵阳市); Qingzhen, Guizhou Province (贵阳市, 清镇市)	Southwest Training Base	May be related to land-attack cruise missile operations; a "major element" of the unit appears also to be based in Hainan Island.

Source: Sources: Mark Stokes, "Second Artillery Unit and Leadership Report: 1st Quarter 2012," Project 2049 Institute, February 21, 2012.

Base 54

Located in Luoyang, Henan Province, Second Artillery's Base 54 is an important nuclear ICBM command.¹⁰⁴ Concentrated in western Henan Province, Base 54 oversees three ICBM brigades. At least one of these brigades is equipped with the silo-based DF-5 and is capable of reaching CONUS targets. The base also hosts the Second Artillery's first DF-31 brigade, headquartered in Nanyang. Tentative indications exist of a potential new brigade being formed in the area of Xinyang. Likely an operational test and evaluation regiment at the current time, a highly speculative hypothesis is that the unit could emerge as a road mobile MIRVed ICBM brigade. Missile brigades subordinate to Base 54 are shown in Table 9.

¹⁰⁴ Stokes and Hsiao, "Spotlight on New Second Artillery ICBM Base Leadership."

Table 9: Missile Brigades Subordinate to PLASAF Base 54

<i>TUD</i>	<i>MUCD</i>	<i>LOCATION</i>	<i>MISSILE SYSTEM</i>	<i>ADDITIONAL INFORMATION</i>
801 Brigade	96261	Lushi County, Sanmenxia, Henan Province (三门峡市, 卢氏县)	Nuclear ICBMs	Established 1959; upgraded to regiment in 1966 with the formal establishment of Second Artillery and to brigade in 1985 when strategic ICBMs entered its operational inventory; known as the "First East Wind Brigade."
804 Brigade	96263	Luoning County, Luoyang, Henan Province (洛阳市, 洛宁县)	Nuclear ICBMs	
813 Brigade	96265	Nanyang, Henan Province (南阳市)	Road-mobile nuclear ICBMs	The first unit in Second Artillery to be outfitted with the DF-31 road-mobile ICBM

Sources: Mark Stokes, "Second Artillery Unit and Leadership Report: 1st Quarter 2012," Project 2049 Institute, February 21, 2012; Mark Stokes, "Expansion of China's Ballistic Missile Infrastructure Opposite Taiwan," Asia Eye, Project 2049 Institute, April 18, 2011; and Sean O'Connor, "Dragon's Fire: The PLA's Second Artillery Corps," IMINT & Analysis, June 26, 2010.

Support regiments under Base 54 are shown below in Table 10.

Table 10: Support Regiments Subordinate to Base 54

<i>MUCD</i>	<i>LOCATION</i>	<i>CLASSIFICATION</i>	<i>DESCRIPTION</i>
96271	Yiyang County, Luoyang, Henan Province (洛阳市, 宜阳县)	Training	
96272		Transport	
96273	Lushi County, Sanmenxia, Henan Province (三门峡市, 卢氏县)	Warhead	
96274	Luoyang, Henan Province (洛阳市)	Repair	
96275	Luoyang, Henan Province (洛阳市)	Communications	

Source: Mark Stokes, "Second Artillery Unit and Leadership Report: 1st Quarter 2012," Project 2049 Institute, February 21, 2012.

Base 55

Headquartered in the western Hunan city of Huaihua, Base 55 consists of three ICBM brigades concentrated in Hunan and one LACM brigade in neighboring Jiangxi province. Missile brigades subordinate to Base 55 are shown in Table 11 below:

Table 11: Missile Brigades Subordinate to Base 55

<i>TUD</i>	<i>MUCD</i>	<i>LOCATION</i>	<i>MISSILE SYSTEM</i>	<i>ADDITIONAL INFORMATION</i>
803 Brigade	96311	Jingzhou Miao and Dong Autonomous County, Huaihua, Hunan Province (怀化市, 靖州苗族侗族自治县)	Nuclear ICBMs	
805 Brigade	96313	Shaoyang, Hunan Province (邵阳市)	Road-mobile nuclear ICBMs	Relocated from Tongdao to Shaoyang and converted from its inventory of older missiles to more modern, road-mobile ICBMs
814 Brigade	96315	Huitong County, Huaihua, Hunan Province (怀化市, 会同县)	Nuclear ICBMs	
824 Brigade	96317	Yichun, Jiangxi Province (宜春市)	Conventional LACMs	

Sources: Mark Stokes and L.C. Russell Hsiao, "Spotlight on New Second Artillery ICBM Base Leadership," Asia Eye, Project 2049 Institute, August 2, 2011; and Mark Stokes and L.C. Russell Hsiao, "New DF-31A ICBM Brigade in Hunan?" Asia Eye, Project 2049 Institute, September 9, 2011.

Support regiments under Base 55 are shown below in Table 12:

Table 12: Support Regiments Subordinate to Base 55

<i>MUCD</i>	<i>LOCATION</i>	<i>CLASSIFICATION</i>	<i>DESCRIPTION</i>
96321	Dongkou County, Shaoyang, Hunan Province (邵阳市, 洞口县)	Training	
96322	Jingzhou Miao and Dong Autonomous County, Huaihua, Hunan Province (怀化市, 靖州苗族侗族自治县)	Transport	Appears to have attempted an emergency delivery mission in 2011 that experienced a serious delay.
96323	Huaihua, Hunan Province (怀化市)	Warhead	
96324	Hecheng District, Huaihua, Hunan Province (怀化市, 鹤城区)	Repair	
96325	Huaihua, Hunan Province (怀化市)	Communications	

Source: Mark Stokes, "Second Artillery Unit and Leadership Report: 1st Quarter 2012," Project 2049 Institute, February 21, 2012.

Base 56

Headquartered in Yuzhong County within the municipality of Lanzhou City, Base 56 oversees as many as two brigades equipped with variants of the DF-21 and at least one equipped with the

DF-31A ICBM.¹⁰⁵ Base 56 may also administer the Second Artillery’s Northwest Test and Training base. Missile brigades subordinate to Base 56 are listed in Table 13 below:

Table 13: Missile Brigades Subordinate to Base 56

TUD	MUCD	LOCATION	MISSILE SYSTEM	ADDITIONAL INFORMATION
809 Brigade	96361	Datong Hui and Tu Autonomous County, Xining, Qinghai Province (西宁市, 大通回族土族自治县)	Appears to be converting from nuclear MRBMs to road-mobile nuclear ICBMs, according to Hans Kristensen [135]	
812 Brigade	96363	Tianshui, Gansu Province (天水市)	Road-mobile nuclear ICBMs	Second Artillery’s first DF-31A mobile ICBM unit.
823 Brigade	96365	Korla (Ku’erle), Bayin’guoleng Mongol Autonomous Prefecture, Xinjiang Province (库尔勒市, 巴因郭冷蒙古族自治州)	Conventional MRBMs	Known as the “Dagger Brigade”.

Sources: Hans Kristensen, “Chinese Mobile ICBMs Seen in Central China,” FAS Strategic Security Blog, March 1, 2012; Mark Stokes, “Second Artillery Unit and Leadership Report: 1st Quarter 2012,” Project 2049 Institute, February 21, 2012; Mark Stokes and L.C. Russell Hsiao, “New DF-31A ICBM Brigade in Hunan?” Asia Eye, Project 2049 Institute, September 9, 2011; Mark Stokes, “Expansion of China’s Ballistic Missile Infrastructure Opposite Taiwan,” Asia Eye, Project 2049 Institute, April 18, 2011; and Sean O’Connor, “Dragon’s Fire: The PLA’s Second Artillery Corps,” IMINT & Analysis, June 26, 2010.^{106 107 108}

Support regiments under Base 56 are shown below in Table 14:

¹⁰⁵ Base general headquarters was formerly located in Xining until its move to Lanzhou City in 2010-2011.

¹⁰⁶ Hans Kristensen, “Chinese Mobile ICBMs Seen in Central China,” *FAS Strategic Security Blog*, 1 March 2012.

¹⁰⁷ Mark Stokes, “Second Artillery Unit and Leadership Report: 1st Quarter 2012,” Project 2049 Institute, 21 February 2012.

¹⁰⁸ Ibid.

Table 14: Support Regiments Subordinate to Base 56

MUCD	LOCATION	CLASSIFICATION	DESCRIPTION
96371	Shangwuzhuang Township, Huangzhong County, Xining, Qinghai Province (西宁市, 湟中县, 上五庄镇)	Training	
96372	Huangzhong County, Xining, Qinghai Province (西宁市, 湟中县)	Transport	
96373	Shangwuzhuang Township, Huangzhong County, Xining, Qinghai Province (西宁市, 湟中县, 上五庄镇)	Warhead	Reporting on this unit can often be confused with the 22 Base, 96241 Unit.
96374	Sanqi Village, Chengbei District, Xining, Qinghai Province (西宁市, 城北区, 三其村)	Repair	
96375		Communications	The S&T Daily indicates that it has a “three-hour rapid response requirement for emergency deployments; equipped with Iridium satellite phone systems and maritime satellite communications.
96367	Delingha, Haixi Mongol and Tibetan Autonomous Prefecture, Qinghai Province (海西蒙古族藏族自治州, 德令哈市)	Northwest Test and Training Base	Serves as the Second Artillery’s test and training base.

Second Artillery Brigades: Roles, Organization, and Recent Developments

Working closely with support regiments, Second Artillery operations centered upon launch brigades and subordinate launch battalions. Roughly equal in status to a U.S. Air Force (USAF) wing, a launch brigade is typically commanded by a senior colonel (roughly equivalent to a U.S. brigadier general). Brigade headquarters are structured along similar lines as general headquarters and missile bases, with staff functions carried out by a headquarters department, political department, logistics department, and equipment department.

A chief of staff oversees the brigade Headquarters Department, with deputy chiefs of staff likely manning a 24-hour command center managed by the brigade operations and training office. Other Headquarters Department offices are responsible for weather, engineering, target intelligence, and other operational support functions. The Logistics Department likely oversees the brigade’s budget and finance and fuel depot and a material depot.¹⁰⁹ A military transportation section would be responsible for coordinating with the base-level transportation regiment and with local civilian highway and rail authorities.¹¹⁰ The Equipment Department oversees sections responsible for equipment management and oversight of technical operations, including

¹⁰⁹ Accessed at <http://mil.news.sina.com.cn/2011-02-16/1114633129.html> on 27 November 2012.

¹¹⁰ For an overview of a brigade special vehicle mission, see www.stdaily.com/kjrb/content/2011-06/21/content_316977.htm. Accessed 27 November 2012.

development of tactics, techniques, and procedures for missile preparation, underground facility, transfer point, and launch site management, as well as coordination with support regiments.¹¹¹

A launch brigade consists of six subordinate launch battalions consisting of two companies each. Commanded by a major or lieutenant colonel, a launch battalion is the core of missile operations. The table of organization and equipment (TO&E) for a nuclear-capable launch brigade appears to assign 12 launchers (one per company). Conventional brigades subordinate to Base 52 appear to be assigned 36 transport-erector-launchers (TELs), or 6 launchers per battalion (three launchers per company).

It is unclear whether brigades have warheads or missiles assigned to their TO&E on a permanent basis. Base 22 stores and handles most nuclear warheads, with base-level Equipment Inspection regiments having relatively few warheads under control at any given time. Equipment Inspection regiments, and a specialized additional regiment under Base 52, may also perform storage and depot functions for missiles. The base-level transportation regiment is responsible for delivery of warheads and missiles to a brigade's technical positions for assembly, mating, and other pre-launch missions.

Adopting the Soviet model for missile operations, a technical battalion is responsible to the brigade commander for preparing a missile round for launch, including inspection and testing of components, missile assembly and warhead mating, targeting, and other tasks.¹¹² Individual components of a nuclear warhead and missile delivery vehicle sub-assemblies and components, including the inertial measurement unit (IMU), such gyroscope or GPS receiver, must be tested to ensure readiness. Much of the work is carried out in an underground facility, referred to as the Central Depot. According to one report, a technical battalion commander spent 270 days in one year in a Central Depot for testing, maintenance, and assembly.¹¹³

Mobile missile brigades oversee a site management battalion. As many as six subordinate companies manage missile-related launch sites, storage, and handling facilities. Their responsibilities include underground facility management, including power and electricity, water, air-conditioning, and ventilation. Facilities have upgraded to site management information system, including automated security and perimeter monitoring systems. At least one unit, based in the Qimen area, ran into difficulties with local villagers stripping away forest cover camouflaging launch positions. At least one site management battalion manages a central fuel management depot. A subordinate platoon is responsible for site management battalion communications.

¹¹¹ Accessed at <http://mil.anhuinews.com/system/2004/04/30/000634878.shtml> on 27 November 2012 and http://junshi.xilu.com/2009/0521/news_1375_325555.htm on 27 November 2012.

¹¹² B.P. Voronin, and N.A. Stolyarov, *Launch Preparation and Rocket Launching, 1972*, translated by U.S. Foreign Technology Division (FTD-ID(RS)T-0327-91), at www.dtic.mil/dtic/tr/fulltext/u2/a238929.pdf.

¹¹³ The technical battalion often will include a measurement and transport company (测试转运连) and a site equipment company (阵通连). A technical battalion also can include a site management company (阵管连), which appears to manage facilities at operational sites, including technical sites or fixed/mobile launch sites. It may also have a rail transport company (铁运连) and loading company (装填连). Missile launch operation appears to be under the purview of the measurement and transport company's control platoon (控制排) commander.

Other brigade elements include a security company, technical service battalion, communication battalion, and an electronic countermeasures battalion. A brigade's technical service battalion provides warning, camouflage, and weather support.¹¹⁴ Over the last decade, newly formed Second Artillery brigades have formed ECM battalions for self-protection against air attack. Battalions have been noted participating in training during deployments to Northwest China.¹¹⁵

A launch brigade's communications battalion is the glue that binds together elements within the brigade. Leveraging static fiber optic networks and satellite terminals for brigade liaison with upper echelons, the communications battalion most likely relies upon tactical line of sight communications for intra-brigade communications. A brigade may have its own fiber optic network anchoring a brigade to selected pre-survey launch sites and technical positions. However, reliance on wireless line of sight communications would indicate that launch battalions operate within a 100-kilometer radius of a brigade's command center.

Open source analysis highlights at least three relatively recent organizational developments:

- Second Artillery has established a new missile brigade in the area of Shaoguan, Guangdong Province, under Base 52. This brigade "could be a candidate for a new MRBM system, such as the DF-16."¹¹⁶
- Another missile brigade was recently formed in the area of Qingyuan City, Guangdong Province, under Second Artillery's Base 53. This unit could be a candidate to receive the DF-21D ASBM.¹¹⁷
- Finally, there are indications that the two tactical missile brigades under the PLA Army (one in the Nanjing MR and one in the Guangzhou MR) have transferred to Second Artillery.¹¹⁸

Base 22

The Second Artillery maintains separate systems for missile and nuclear warhead management. China maintains a highly centralized nuclear warhead storage and handling system to maximize security, maintain strict control, and minimize the possibility of any nuclear accidents or

¹¹⁴ Service Battalions include a warning and camouflage company (警伪连). Brigades with Service Battalions include the 96211, 96163, and 96317 Units. Accessed at www.chinamil.com.cn/site1/2007ztpdc/2007-09/07/content_943213.htm on 27 November 2012; www.stdaily.com/kjrb/content/2011-02/22/content_276929.htm on 27 November 2012; and www.chinamil.com.cn/site18/news/2008-08/31/content_1454482.htm on 27 November 2012.

¹¹⁵ For example, media highlighted ECM battalion training in Northwest China on October 19, 2010. Accessed at http://tp.chinamil.com.cn/2010-10/25/content_4320362.htm on 27 November 2012. Confirmed brigades with ECM battalions include the 96164 Unit (820 Brigade in Jinhua), 96215 Unit, and 96363 Unit in Tianshui. Accessed at <http://news.sohu.com/20100823/n274392447.shtml> on 27 November 2012; www.chinamil.com.cn/site1/jbzsc/2009-05/19/content_1768818.htm on 27 November 2012; and <http://military.people.com.cn/GB/42967/8140815.html> on 27 November 2012.

¹¹⁶ Mark Stokes, "Expansion of China's Ballistic Missile Infrastructure Opposite Taiwan," *Asia Eye*, Project 2049 Institute, 18 April 2011, accessed at <http://blog.project2049.net/2011/04/expansion-of-chinas-ballistic-missile.html> on 27 November 2012; and J. Michael Cole, "NSB Director Confirms PRC Deployment of 'New' Missile Unit in Guangdong Province," *Taipei Times*, 27 May 2011, accessed at www.taipeitimes.com/News/taiwan/archives/2011/05/27/2003504271 on 27 November 2012.

¹¹⁷ Ibid.

¹¹⁸ Ibid.

unauthorized access to or use of nuclear weapons. As primary custodians of China's nuclear warhead stockpile, Base 22 inspects warheads for reliability and safety, stores and transports warhead components, trains missile base personnel in warhead storage, maintenance, assembly, and mating, maintains a support infrastructure for warhead management, and operates a communications system that supports its mission.¹¹⁹ The force centrally stores most of the country's nuclear warheads in Taibai County, deep in the Qinling Mountains of Shaanxi Province. Base 22 was established under COSTIND in the mid-1960s, and re-subordinated to the Second Artillery in the 1970s. Base 22 includes two inspection units for warhead maintenance and inspection. At least one works within the nuclear warhead storage depot in Taibai County. The Base 22 transportation regiment handles the movement of warheads between the central storage complex in Taibai and smaller storage facilities that are subordinate to each of Second Artillery's missile bases. The transportation regiment consists of at least two battalions, one for road and one for rail, and works closely with PLA rail representative offices.¹²⁰ The transportation regiment employs specialized container vehicles to transport warheads by specially designated roads linking Taibai with transfer points along the Baoji-Chengdu rail line.¹²¹ A separate Base 22 regiment is responsible for training Second Artillery personnel in warhead maintenance and handling. A communications regiment is responsible for nuclear warhead command and control-related communications within Base 22, and between Base 22 and other Second Artillery units. Base 22 also oversees a contingency response group for nuclear and other weapons of mass destruction (WMD)-related accidents.

Base 28

Second Artillery also maintains a base that is responsible for training, and reportedly supervises a "blue force" unit that acts as the opposing force in training and exercises. The incorporation of a realistic opposing force is intended to help sharpen the skills of other PLASAF units. According to Ron Christman, "One of the most significant advances Second Artillery has made in preparing its conventional units to deal with a severe threat environment has been establishing an "opposing force" unit that tests operational units in a wide range of battlefield environments. This so-called "Blue Army" opposing force regiment is probably subordinate to Second Artillery's Base 28, which is located in Jilin Province in northeastern China."¹²² Chinese military media reports indicate that this "Blue Force" unit replicates potential enemy operations against the PLASAF by simulating electronic warfare, computer network attacks, air strikes, and special operations force raids in online and field training exercises involving PLASAF missile units.¹²³

Second Artillery Force Academic and Research Organizations

Second Artillery also maintains several academic and research organizations. The academic

¹¹⁹ Mark A. Stokes, "China's Nuclear Warhead Storage and Handling System," Project 2049 Institute, 12 March 2010, p. 3, accessed at http://project2049.net/documents/chinas_nuclear_warhead_storage_and_handling_system.pdf on 27 November 2012.

¹²⁰ Accessed at <http://club.xilu.com/emas/msgview-821955-64344.html?PHPSESSID=04845836d7cd9ef5131e8edbfbb462ff> on 27 November 2012

¹²¹ Stokes, "China's Nuclear Warhead Storage and Handling System," p. 8.

¹²² Christman, "Conventional Missions for China's Second Artillery Corps," p. 211.

¹²³ See, for example, Feng Chunmei, Chen Shoufu, and Zhang Rong, "The Long Sword of a Great Power Must be Mighty (Voice of 8-1 Highlighting the Building of the Core Military Capabilities of the Second Artillery (大国长剑其势必威(八一之声))第二炮兵核心军事能力建设亮点透视)", 人民日报 (People's Daily), December 16, 2011, p. 20.

institutions include the Second Artillery Command Academy (第二炮兵指挥学院), the Second Artillery Engineering Academy (第二炮兵工程学院), and the Second Artillery Qingzhou Noncommissioned Office (NCO) School (第二炮兵青州士官学校). The research organizations include the Second Artillery Equipment Research Academy (第二炮兵装备研究院), as well as several other research institutes, such as the Second Artillery Engineering Design Research Academy (第二炮兵工程设计研究院) and the Assembly and Inspection Research Institute.¹²⁴

Second Artillery Command Academy (第二炮兵指挥学院)

The Second Artillery Command Academy is a corps-leader grade (正军职) organization located in Wuhan, Hubei Province.¹²⁵ It was established in 1977 and provides intermediate-level training and development for PLASAF officers and technical personnel.¹²⁶ It offers courses at the doctoral, masters, and undergraduate levels, as well as specialized technical courses in a number of fields. It received the right to confer masters-level degrees in 1990 and doctoral degrees in 1998. It offers masters degrees in a number of fields, including:

- Service campaign studies (军种战役学)
- Military logistics studies (军事后勤学)
- Military political work studies (军队政治工作学)
- Military armament studies (军事装备学)
- Military communications studies (军事通信学)

Masters degrees are also available in eight other fields that are not listed, and it offers a doctoral degree in service campaign studies (军种战役学). The main fields of study offered at the undergraduate (本科) level include the following:

- Communications command (通信指挥)
- Electrical power engineering and automation (电力工程及其自动化)
- National defense engineering command (国防工程指挥)
- Machinery engineering and automation (机械工程及其自动化)
- Construction engineering (土木工程)
- Water supply and drainage, heating, and ventilation engineering (给排水与采暖通风工程)

The three-year senior technical degrees (大专) offered for non-commissioned officers at the academy include:

- Wired communications command (有线通信指挥)

¹²⁴ Gill, Mulvenon, and Stokes, "The Chinese Second Artillery Corps: Transition to Credible Deterrence," p. 529-530.

¹²⁵ Accessed at <http://wenku.baidu.com/view/48c2487931b765ce050814d6.html> on 30 August 2012.

¹²⁶ This description is taken from Second Artillery Command Academy (第二炮兵指挥学院), 9 July 2007, accessed at www.chinamil.com.cn/site1/milschools/2007-07/09/content_871228.htm on 27 November 2012.

- Wireless communications command (无线通信指挥)
- Mobile communications (移动通信)
- Engineering construction management (工程建筑管理)
- Engineering facilities installation (工程设备安装)
- Engineering machinery command (工程机械指挥)

In addition, the Second Artillery Command Academy serves as an important center of research on military affairs and theory for the PLASAF. Faculty members and researchers have won a number of awards for their research and authored a substantial number of articles and other publications on related subjects.

Second Artillery Engineering Academy (第二炮兵工程学院)

The Second Artillery Engineering Academy is also a corps-leader grade (正军职) organization and is located in Xi'an, Shaanxi Province.¹²⁷ It was established in September 1959. It serves as Second Artillery's basic training academy. According to its website, it is the "cradle (摇篮) of the officers of the PLA's strategic missile force." The academy has produced more than 30,000 graduates, of whom 96 have become general officers, and its website states that 90 percent of current missile brigade commanders and chiefs of staff are graduates of the academy.¹²⁸ The Second Artillery Engineering Academy's website indicates that the school offers the following specialties (专业设置):

- Electronic engineering (电子工程)
- Engineering Physics (工程物理)
- Weapon systems and launch engineering (武器系统与发射工程)
- Air vehicle propulsion engineering (飞行器动力工程)
- Measurement and control engineering (测控工程)
- Computer science and technology (计算机科学与技术)
- Command automation engineering (指挥自动化工程)
- Information research and security (信息研究与安全)
- Mechanical engineering and automation (机械工程及其自动化)
- Power engineering and automation (电力工程及其自动化)
- Environmental engineering (环境工程)
- Management engineering (管理工程)
- Information engineering (信息工程)
- Sensing engineering (侦测工程)
- Firepower command and control engineering (火力指挥与控制工程).¹²⁹

¹²⁷ Accessed at <http://wenku.baidu.com/view/48c2487931b765ce050814d6.html> on 30 August 302012.

¹²⁸ Second Artillery Engineering Academy, "Overview of the Academy (学院概况)", accessed at www.epgc.net/xygk/ on 7 December 2011.

¹²⁹ See Second Artillery Engineering Academy, "Specialties" (专业设置), www.epgc.net/zysz/249524.shtml, accessed December 7, 2011.

Second Artillery Qingzhou Non-commissioned Officer (NCO) School
(第二炮兵青州士官学校)

The Second Artillery Qingzhou NCO School is a division-leader grade (正师职) organization located in Qingzhou, Shandong Province.¹³⁰ It was first established as the 814 Regiment of the Second Artillery in September 1970 in Yunnan Province and was relocated just over a year afterward in November 1971 to Xi'an (presumably near the premises of the Second Artillery Engineering Academy, which assumed teaching responsibilities for the 814 Regiment). The 814 regiment became the Second Artillery Training Regiment (第二炮兵训练团) in April 1976; relocated to the premises of the Second Artillery Command Academy in Wuhan in August 1976; and finally to Qingzhou in Shandong Province in January 1978, where it assumed training of NCOs (in addition to various other training programs it had undertaken, including officer training). In March 1993, the Training Regiment was rechristened the Qingzhou Branch of the Second Artillery Command Academy, and in July 1999 as the NCO School. The school today offers 19 tertiary-level (i.e., university-level) majors, 16 vocational programs, and nine short-term training programs. It publishes five journals, including "NCO Education Survey" (士官教育概论) and "NCO Psychological Education" (士官心理教育), and its students and faculty have published 700 papers in recent years in both military-related and non-military-related journals. The Qingzhou campus hosts one weapons testing center, 60 laboratories, and 15 training fields, and is reportedly equipped with four types of ground-to-ground missile systems.¹³¹

Second Artillery Equipment Research Academy (第二炮兵装备研究院)

The Second Artillery Equipment Research Academy was formed in December 2003 in order to better leverage available technologies for the purpose of force modernization and to integrate activities of stove-piped research institutes. Located in Beijing's Qinghe suburb, the Second Artillery Equipment Research Academy is a corps-leader grade (正军职) organization.¹³² At least five and as many as seven subordinate research institutes conduct feasibility studies and develop concepts for new missile systems, and oversee industrial R&D and testing. The first known competitive tender for an R&D contract appears to have been in 2002. Program management of larger, more complex systems is handled at the Equipment Research Academy headquarters level, while sub-systems are managed within the Academy's research institutes.¹³³ The research institutes within the Second Artillery's Equipment Research Academy and multiple research

¹³⁰

Accessed

at

http://wk.baidu.com/view/40c3924cfe4733687e21aae5?from=&ssid=&bd_page_type=1&uid=bk_1342510523_703&pu=sl%401%2Cpw%403000%2Csz%40224_220%2Cpd%401%2Cfz%402%2Clp%401%2Ctpl%40color&pn=1&st=1&set=num on 30 August 2012.

¹³¹ "Qingzhou Second Artillery Noncommissioned Officer School of the CPLA (中国人民解放军第二炮兵青州士官学校)," *Chinese Military Encyclopedia, Edition II, Discipline Volume III: The History of the People's Liberation Army* (中国军事百科全书学科分册 III: 中国人民解放军军史), Beijing: China Encyclopedia Publishing House (中国大百科全书出版社), p. 768.

¹³² Xia Hongming, Wang Yongxiao, and Zhou Ming, "Second Artillery Equipment Research Academy Investigates Indigenous Innovation (第二炮兵装备研究院探讨自主创新)," *PLA Daily* (解放军报), 18 December 2007, accessed at www.chinamil.com.cn/site1/xwpdxw/2007-12/18/content_1059412.htm on 27 November 2012.

¹³³ For general background on the Academy, see "How Did the Second Artillery Corps Create More than 6,000 S&T Results? (二炮 6000 余项科研成果是如何创造的?)," *PLA Daily* (中国军网), 11 February 2009, accessed at http://news.xinhuanet.com/mil/2009-02/11/content_10798697.htm on May 30, 2010.

offices within the Second Artillery’s Engineering Academy support Second Artillery headquarters staff in the development of technical requirements documentation.¹³⁴

A bibliometric analysis of the academy’s publications available on the Chinese National Knowledge Infrastructure (CNKI) database reveals that the academy published 742 papers on CNKI since 2004 on the open source. There appear to be at least seven research institutes (研究所) subordinate to the academy – and an as yet undetermined number of laboratories under each research institute. The following table shows how many papers each of the seven research institutes published, which shows that the third research institute is the most prolific on CNKI:

Table 15: Publications from PLASAF Equipment Research Academy by Research Institute

<i>Research Institute</i>	<i>Publications Count</i>
First Research Institute	8
Second Research Institute	44
Third Research Institute	76
Fourth Research Institute	36
Fifth Research Institute	23
Sixth Research Institute	4
Seventh Research Institute	3

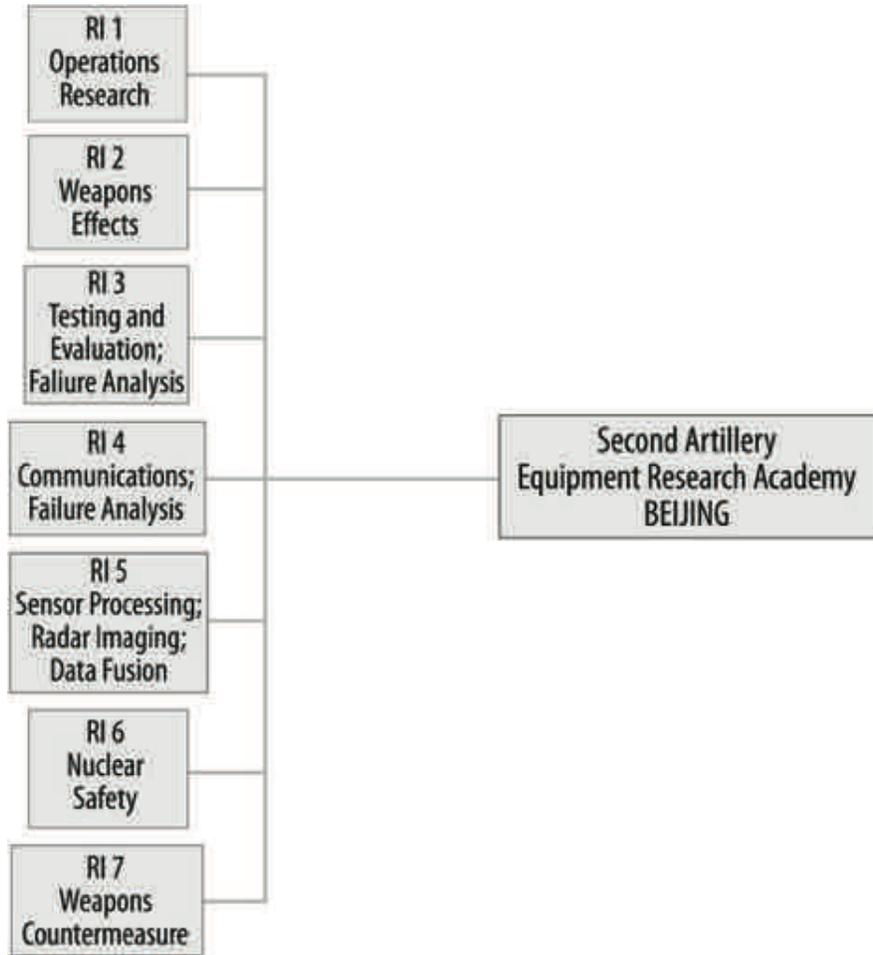
Source: China National Knowledge Infrastructure

An analysis of the content of the publications produced by each of the research institutes reveals, to varying degrees of confidence, a general idea of the fields in which each unit specializes. For example, the first research institute appears to focus primarily on operations research (OR), having published literature on such matters as missile readiness, airborne laser-based missile defense, mobile maintenance equipment, preventive maintenance measures, and weapons targeting. A chart detailing these findings for each of the research institutes is presented below in Figure 6.¹³⁵

¹³⁴ For example, the Academy’s Operations Support Department has produced a number of studies on anti-ship ballistic and anti-satellite technologies. Authors of articles on ASBM and ASAT requirements include Tan Shoulin (谭守林), Wang Minghai (王明海), Li Xinqi (李新其), Zhang Daqiao (张大巧), and Tang Baoguo (唐保国). Most are affiliated with the Engineering Academy’s 603th Instruction and Research Lab (603 教研室). The Department of Automated Control’s 303 Lab (二炮工程学院 303 教研室) has performed technical analysis on near space flight vehicles.

¹³⁵ Accessed at http://blog.tianya.cn/blogger/post_read.asp?BlogID=3119820&PostID=36743031 on 31 August 2012.

Figure 2: Organization of the Second Artillery Equipment Research Academy with Possible Functions of the Subordinate Research Institutes

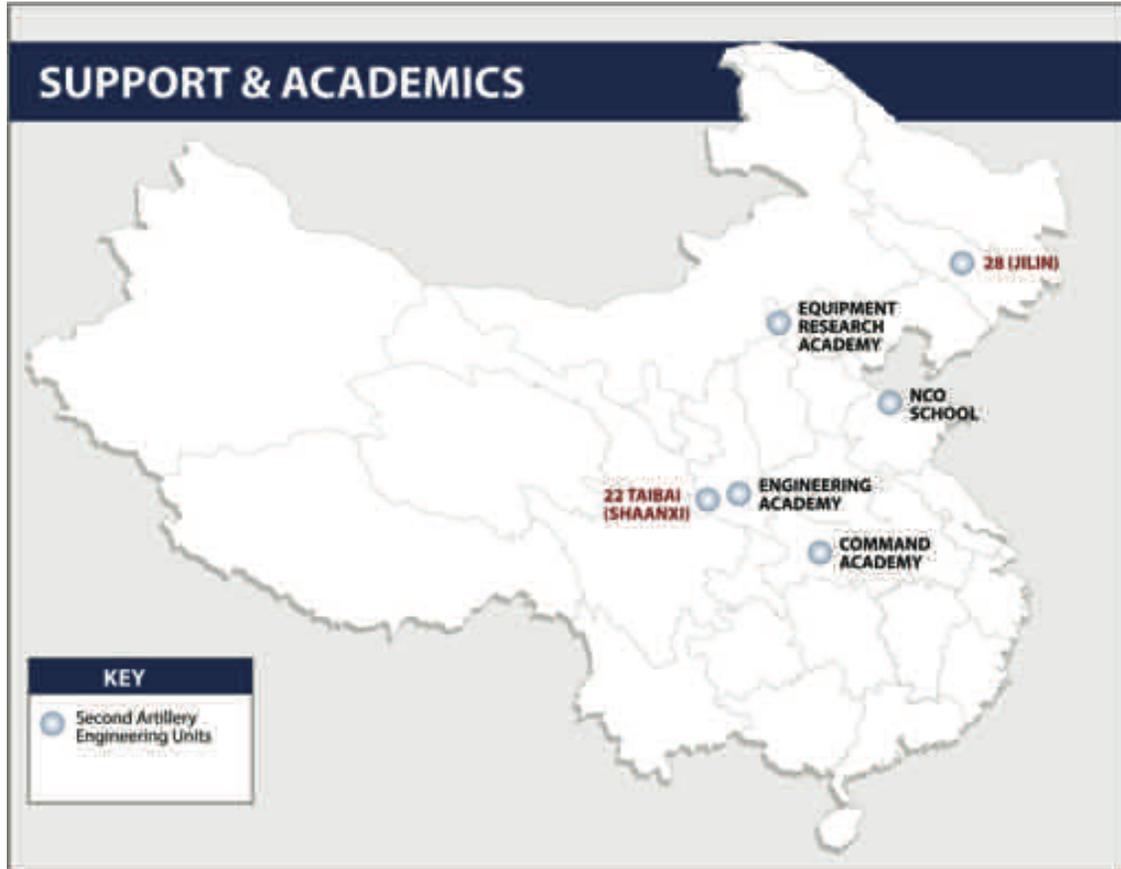


Second Artillery Engineering Design Research Academy (第二炮兵工程设计研究院)

The Second Artillery Engineering Design Research Academy is a corps deputy-leader grade (副军职) organization, a whole grade lower than Second Artillery Command Academy, Second Artillery Engineering Academy, and Second Artillery Equipment Research Academy, and two whole grades lower than the Second Artillery NCO School. It is based in Beijing's Dongcheng District. Established in 1976, it is a research organization that specializes primarily in engineering survey and design and civil air defense. It has designed, among other projects, air defense systems for major Chinese city subway systems; commercial buildings (e.g., offices, hotels, and residential apartments); telecommunications facilities; roads and bridges; and urban planning modules.¹³⁶

¹³⁶ Accessed at www.360doc.com/content/12/1004/16/8021685_239448474.shtml on 27 November 2012; www.urt.cn/4lishi/disp2.asp?recno=520 on 27 November 2012; and http://blog.sina.com.cn/s/blog_4c44e3f40100ibh9.html on 27 November 2012.

Figure 3: Academic and Research Organizations of Second Artillery



Second Artillery Engineering Units

Second Artillery’s engineering community consists of two division leader-grade units: the 308 Engineering Command (MUCD: 96501 Unit) and the Engineering Technology Zongdui (MUCD: 96531 Unit).¹³⁷ The former appears to consist of four “operational engineering regiments responsible for tunneling and other civil engineering functions” along with one regiment dedicated to training and another whose function has yet to be determined; the latter consists of three “installation regiments” (安装团) responsible for “Second Artillery-related installation engineering – including ventilation for underground facilities and fixed communications” along with three other support regiments.¹³⁸ The 308 Engineering Command is based out of Hanzhong, Shaanxi Province; of its three operational engineering regiments, its 107 Regiment (MUCD: 96512 Unit) apparently serves as the “lead” unit responsible for tunneling:

The [107] regiment has at least five battalions that are likely based near regiment headquarters [in Hanzhong, Shaanxi Province] but on long-term tours of duty [throughout] China...The unit also played a key role in the construction of Jiuquan Satellite Launch Center.¹³⁹

¹³⁷ Mark Stokes, “Second Artillery Unit and Leadership Report: First Quarter 2012,” Project 2049 Institute, p.19.

¹³⁸ Ibid.

¹³⁹ Ibid p. 19-20.

The Engineering Technology Zongdui is based out of Luoyang, Henan Province; of its three installation regiments and three support regiments, the First Installation Regiment (MUCD: 96542 Unit) appears to be the most prominent – the regiment won a major award (presumably military-based) in May 2009 for its work in restoring power and water services in the wake of the Sichuan earthquake earlier that year.¹⁴⁰ The First Installation Regiment plays a prominent role preparing nuclear test facilities – again involved in such activities as installing air conditioning, water, and electrical systems in those and other facilities.¹⁴¹ Of the three support regiments attached to the Engineering Technology Zongdui, the Communications Engineering Regiment (MUCD: 96548 Unit) appears to be responsible for communications projects such as laying fiber optics communications lines for Second Artillery (which suggests the unit is likely involved with China’s nuclear command and control system).¹⁴² The Group also has a training regiment as well as a “vehicle repair factory” attached to it.

PLASAF Wartime Organization

The Second Artillery peacetime organizational structure likely would be adjusted in wartime. In the event of a crisis, selected brigades, support regiments, and staff elements under Second Artillery general headquarters and one or more missile bases would comprise a corps-level Second Artillery conventional missile component under a Joint Theater Command (JTC). For example, in a notional Taiwan scenario, the CMC could direct formation of a JTC in the Nanjing area that would consist of a subordinate corps-level Second Artillery component. Under command of the Second Artillery Force Chief of Staff, key Headquarters Department staff, selected support regiments, Base 52 staff, and Base 52 support regiments would be assigned to form the Second Artillery corps. Five conventional SRBM brigades under Base 52, one Base 53 ASBM brigade, and one Base 55 LACM brigade could notionally also be assigned to the Second Artillery component. A separate nuclear corps-level group, reporting directly to the CMC, could be comprised of Base 22 and ICBM brigades subordinate to Bases 54, 55, and 56.

The PLA’s *Science of Second Artillery Campaigns* indicates that the composition of campaign forces would be based on PLASAF peacetime organization. According to *Science of Second Artillery Campaigns*, “using the peacetime system of organization as the foundation and scientifically constructing the wartime system fulfills the requirements of integrating peacetime and wartime and the requirements of rapidly transform in wartime.”¹⁴³ Further, *Science of Second Artillery Campaigns* states that the composition of campaign forces must be able to satisfy operational requirements and facilitate coordination with the rest of the armed forces. In addition, PLASAF wartime organization must be unified with the joint campaign command system.

Selected conventional missile units would be assigned under the JTF command headquarters. Nuclear-capable brigades likely would fall under the direct control of the Supreme Command.

¹⁴⁰ Ibid p. 20.

¹⁴¹ Ibid p. 20-21.

¹⁴² Ibid p. 21.

¹⁴³ *Science of Second Artillery Campaigns*, p. 146.

PLASAF campaign forces are divided into three groups: basic assault group, reserve assault group, and support group. The basic assault group is the “main operational force.” The reserve assault group is held in reserve for subsequent campaign operations. The support group handles all support requirements for the campaign.

In a conventional campaign, the conventional guided missile assault campaign *juntuan* consists of a basic assault group, reserve assault group, and support group. The basic assault group is composed of several guided missile brigades, an electronic warfare unit, defensive operations unit, and other units. The strength of the reserve assault group is determined by the campaign commander in accordance with his expectations about the development of the campaign. They are generally about one-third the size of the basic assault group forces. The support group includes combat support units, logistics support units, and equipment support units.¹⁴⁴

In a nuclear counterstrike campaign, the nuclear counterstrike campaign *juntuan* consists of a basic assault group, reserve assault group, and support group. The basic assault group is composed of several nuclear missile brigades, equipment inspection regiment, electronic warfare unit, and defensive operations forces. The composition of the reserve assault group is the same as that of the basic assault group, but it is smaller. Nonetheless, it must consist of forces that are sufficient to “meet the needs of a counter-punch against the enemy.”¹⁴⁵ The support group includes combat support units, logistical support units, and equipment support units.

Possible Future Developments

What do these developments suggest about the future of Second Artillery as an organization? This section considers the future of Second Artillery’s nuclear and conventional missile forces and some of the potential organizational implications of developments in these areas.

The Future of Second Artillery’s Nuclear and Conventional Missile Forces

The modernization and expansion of China’s nuclear missile force capabilities has led some analysts to ponder the question of “how much is enough” for China. The answer to this question will influence the size and composition of the PLASAF as an organization. Some observers have speculated that China may take advantage of the declining numbers of nuclear weapons in the U.S. and Russian arsenals to “rush to parity” with the nuclear superpowers.¹⁴⁶

However, the writings of Chinese strategists suggest quite strongly that China would see little benefit to be gained by amassing thousands of nuclear weapons. With respect to its nuclear missile force, China has shown it is determined to maintain the secure, second-strike capability that is required to ensure that it will have a credible strategic deterrence force even in the face of advances in adversary ISR, precision strike, and missile defense capabilities. Yet the writings of Chinese strategists strongly suggest that going much beyond what is required for an unquestionably credible assured retaliation capability would lead to diminishing returns at best and strategic instability at worst.

¹⁴⁴ Ibid, p. 148-150.

¹⁴⁵ *Science of Second Artillery Campaigns*, p. 150-151.

¹⁴⁶ For an example of the argument that China could try to take advantage of U.S. and Russian reductions, see Peter Brookes, “Beijing’s Build-Up and New START,” *National Review Online*, 9 December 2010, accessed at www.nationalreview.com/articles/254731/beijing-s-build-and-new-start-peter-brookes?pg=1 on 27 November 2012.

For example, Yao Yunzhu argues that China continues to adhere to the views of Mao Zedong and Deng Xiaoping, who clearly believed that “deterrent effectiveness does not increase in proportion with numbers of nuclear weapons,” but rather that “a survivable and invulnerable small arsenal can be equally effective in terms of deterrence.”¹⁴⁷

Along similar lines, Sun Xiangli, Deputy Director of the Arms Control Research Division at the Beijing Institute for Applied Physics and Computational Mathematics (IAPCM), argues that the experience of the U.S.-Soviet competition during the Cold War shows that the pursuit of a “war-fighting” strategy “does not substantially increase the effectiveness of nuclear deterrence.” Moreover, because it requires a very large nuclear arsenal, it consumes “substantial economic and technological resources.” Worse still, large arsenals and “war-fighting” strategies lead to strategic instability and increase the risk of nuclear war.¹⁴⁸

As Fravel and Medeiros point out, “Chinese leaders have believed that nuclear weapons were basically unusable on the battlefield and that once mutual deterrence was achieved, a larger arsenal or arms racing would be costly, counterproductive, and ultimately self-defeating.”¹⁴⁹ China is thus extremely unlikely to attempt to match or exceed the United States or Russia in terms of the number of nuclear weapons it deploys. Nonetheless, there is ample reason to believe Beijing will increase the size of its nuclear arsenal as needed to ensure that it maintains an assured retaliation capability in response to perceived security challenges. This could result in quite substantial increases to the quantity and quality of China’s nuclear arsenal, which in turn could have important implications for the organization of the PLASAF.

Indeed, many observers expect China to field a larger and more sophisticated nuclear force over the next 10-15 years. According to unclassified March 2011 congressional testimony by DIA Director Lt. Gen. Ronald L. Burgess Jr., for example, “The PRC currently has fewer than 50 ICBMs that can strike the continental United States, but probably will more than double that number by 2025.”¹⁵⁰ The key factors that are likely to influence Chinese decision-making about what exactly it requires in terms of nuclear force structure include China’s perception of external security environment and its relationships with major powers, principally the United States, India, Russia, and Japan; China’s perception of potential nuclear and conventional threats to its silo-based, road-mobile, and sea-based nuclear forces; and China’s concerns about future missile defense developments that could undermine its ability to maintain an assured retaliation posture capable of deterring potential adversaries.

Chinese scholars suggest that missile defense is the most important factor in determining China’s future requirements. According to Yao Yunzhu, for example, U.S. missile defense deployments will be “the most significant factor that will influence China’s nuclear calculus.”¹⁵¹ Furthermore, according to Chu Shulong and Rong Yu of Tsinghua University, “Trying to retain the credibility

¹⁴⁷ Yao Yunzhu, “Chinese Nuclear Policy and the Future of Minimum Deterrence.”

¹⁴⁸ Sun Xiangli, “Analysis of China’s Nuclear Strategy,” p. 27.

¹⁴⁹ Fravel and Medeiros, p. 87.

¹⁵⁰ Lieutenant General Ronald L. Burgess Jr., U.S. Army Director, Defense Intelligence Agency “World Wide Threat Assessment,” Statement before the Committee on Armed Services, United States Senate, 10 March 2011, p. 17, accessed at www.dia.mil/public-affairs/testimonies/2011-03-10.html on 27 November 2012.

¹⁵¹ Yao, “Chinese Nuclear Policy and the Future of Minimum Deterrence.”

of its nuclear deterrent in the face of a BMD system, China may increase its nuclear arsenal until it is beyond doubt that it is large enough.”¹⁵² Chinese writers rarely provide specific numbers, but Chu and Rong suggest that perhaps 200 nuclear warheads could be needed today, with that number perhaps increasing to 300 or 400 in the future.

As for Second Artillery’s conventional missile force, it appears likely to remain the most dynamic component of the PLASAF, with a variety of potential new developments on the horizon, which could influence its organizational structure in important ways. In particular, some analysts have highlighted the possibility that Beijing might choose to pursue new longer-range conventional strike missions and capabilities for Second Artillery.¹⁵³ Specifically, future developments may include further expansion of its conventional MRBM force and possibly conventional IRBMs. According to the 2011 Department of Defense (DoD) report on Chinese military developments, “China’s ballistic missile force is acquiring conventional medium-range and intermediate-range ballistic missiles that extend the distance at which it can threaten other countries with conventional precision or near-precision strikes.”¹⁵⁴

Finally, this paper suggests some research questions that future observers may want to explore as part of the update to the Second Artillery chapter when the third edition of this volume is produced.¹⁵⁵ First, Chinese military publications indicate that Second Artillery’s nuclear counterattack campaign can be conducted as an “independent nuclear counterattack campaign” (独立核反击战役) or as a major part of a “joint nuclear counterattack campaign” (联合核反击战役).¹⁵⁶ Will Second Artillery engage in true joint planning with the PLAN for nuclear counter-attack campaigns, or will the General Staff Department (GSD) coordinate and de-conflict PLASAF and PLAN nuclear operations? Either way, what will be the organizational implications for Second Artillery?

Second, a growing missile force will likely mean more organizational changes to accommodate a larger number of missiles. Will this result in a further increase in the number of missile brigades? Will there be an increase in the number of missiles available for reloads? What other organizational changes might result?

Third, ISR developments will be important to support targeting and battle damage assessment (BDA) for long-range strikes, increasing reliance on space and UAVs. For example, Chinese military publications indicate that as the technological sophistication of the missile force

¹⁵² Chu Shulong and Rong Yu, “China: Dynamic Minimum Deterrence,” in Muthiah Alagappa, ed., *The Long Shadow: Nuclear Weapons and Security in 21st Century Asia*, Stanford: Stanford University, 2008, p. 171.

¹⁵³ James C. Mulvenon, Murray Scot Tanner, Michael S. Chase, David Frelinger, David C. Gompert, Martin C. Libicki, and Kevin L. Pollpeter, *Chinese Responses to U.S. Military Transformation and Implications for the Department of Defense*, Santa Monica, CA: RAND, 2006, p. 95. See also Mark Stokes, *China Evolving Conventional Strategic Strike Capability: The Anti-Ship Ballistic Missile Challenge to U.S. Maritime Operations in the Western Pacific and Beyond*, Project 2049 Institute, 14 September 2009, accessed at www.project2049.net on 27 November 2012.

¹⁵⁴ *Military and Security Developments Involving the People’s Republic of China*, 2011, p. 33.

¹⁵⁵ We are grateful to the commentator and to the other conference participants who raised these questions following our presentation.

¹⁵⁶ *Science of Campaigns*, 2006, p. 616-628.

increases, Second Artillery is becoming increasingly reliant on space systems.¹⁵⁷ What are the organizational implications of Second Artillery's growing reliance on space-based ISR capabilities and UAVs?

Another issue analysts will likely need to explore for the third edition of this volume centers on the possibility that Second Artillery will acquire new missions in the coming years. What will role will Second Artillery play in offensive counter-space operations, electronic attack, and cyber warfare? What organizational changes would be required to accommodate such responsibilities? Finally, with the Chinese Communist Party undergoing a sweeping leadership transition in 2012, will new leaders seek to make any major changes in the organization of the PLASAF?

¹⁵⁷ *Science of Second Artillery Campaigns*, p. 75-76.

Chapter Twelve: China's People's Armed Police Force Leadership, Command, and Organization in the Wake of the 2009 PAP Law

Murray Scot Tanner¹

Important as the development of the regular PLA has been to China's emergence as a global power, China's ability to develop effective, professional paramilitary internal security and emergency response forces will almost certainly have a greater impact on China's day-to-day national security than any other effort to strengthen China's military and security forces. The Chinese Communist Party (CCP) continues to face increasing social unrest, violent crime, cross-border drug trafficking, and other threats to internal stability. Moreover, it has been made clear by recent major social uprisings and natural disasters, such as the 2008 and 2009 riots in Lhasa and Urumqi, and the 2008 Sichuan earthquake, that when China's paramilitary and emergency response forces are unable to handle these crises, Beijing has little choice but to call upon the regular PLA to help support these disaster relief and domestic security operations. China's capacity to develop emergency response and paramilitary forces, therefore, will continue to have a major impact on the regular PLA's ability to free itself to focus on its new emerging missions.

This chapter examines recent efforts to reorganize People's Armed Police Force (PAP/武装警察部队/武警部队)² leadership and management to help it better meet the leadership's expectations of this force. It focuses in particular on the most important effort to reorganize PAP leadership and command in the past decade—the passage in 2009 of the Law of the People's Republic of China on the People's Armed Police (hereafter the PAP Law)—which raised serious issues of the ability of local officials to mobilize the PAP for security missions in their area. The final draft of the law removed language that reaffirmed the authority of local officials to mobilize local PAP forces. This paper, drawing on debates over the draft law and local emergency response plans, attempts to clarify why the draft PAP law was revised, and what the current state of local authority to mobilize and command PAP forces is. This chapter also provides an overview of the basic structure and organization of the PAP.³

Historical Background

Although the modern People's Armed Police Force was formed in the early-mid 1980s, the CCP's military, police, intelligence, and militia forces have experimented with a wide variety of paramilitary security and emergency response forces since well before 1949. The forces that comprise the PAP and its institutional precursors have combined a broad and somewhat disjointed set of security missions and functions, including internal security and social order, border defense, leadership bodyguards, prison guarding, fire-fighting, and providing security for

¹ The views in this paper are entirely those of the author, and should not in any way be interpreted as representing the views of C.N.A., its corporate officers, or its sponsors.

² China's National Defense White Paper and other Chinese English-language media often abbreviate People's Armed Police Force as "PAPF." This chapter uses the abbreviation "PAP."

³ According to the 2002 *China's National Defense*, China's Armed Forces (武装力量) consists of three components: the People's Liberation Army (中国人民解放军), which is composed of active duty Army, Navy, Air Force, and Second Artillery personnel; the People's Armed Police (人民武装警察部队); and the Reserves (预备役部队) and Militia (民兵).

a collection of economic activities (guarding gold-mining, hydropower, transportation, and forestry activities).

These forces have been reorganized, divided, and recombined repeatedly, with the balance of leadership control moving back and forth among Central and local Party and government officials, and between the PLA and Public Security systems. In the case of the PAP's specialized economic units, an additional challenge has been the leadership role and fiscal contributions of the State Council economic ministries whose activities the PAP units secure. The current PAP organizational structure is the PRC's longest-lived paramilitary system, and has finally given PAP forces at least the opportunity to develop a persistent institutional identity and a predictable set of career patterns for its officers.

The process of inaugurating and amalgamating the units that form the modern PAP began with a 19 June 1982 CCP Central Directive entitled "Report Requesting Instructions on the Management Structure of the People's Armed Police." The formal establishment of the PAP Headquarters (中国人民武装警察部队总部) was announced on 5 April 1983. The initial force merged the PLA's Internal Security Duty Forces (*neiwei zhiqin budui*), with public security Armed Forces, Border Defense, Fire-fighting, and other forces subordinate to the Ministry of Public Security (MPS) and other public security departments.⁴

The PAP's border security, fire-fighting, and specialized economic security units continued to expand and reorganize over the next five years as several more paramilitary and security units were added, and leadership over some of these units shifted. The Hydropower (水电), Transportation (交通), and Gold (黄金) protection units that were originally subordinate to the PLA's Capital Construction Corps were added to the PAP order of battle on 1 January 1985. Three years later, in February 1988 the forestry (森林) protection armed police forces in Heilongjiang, Jilin, and Inner Mongolia were also added to the PAP. Originally, most of these units were primarily under the leadership of their respective State Council ministries and commissions. In 1999 the Hydropower, Gold, Transportation, and Forestry units were "clearly placed under the responsibility of the PAP Main Corps," although this wording still leaves many questions regarding their leadership unanswered. In August 1985 the MPS issued a "Notice on Improving and Adjusting the Structure of Border Defense" and a "Notice on Several Directives for Improving and Strengthening the Leadership and Management of the Fire-Fighting Corps." These directives removed the Border Defense Armed Police and the Fire-Fighting Armed Police from the PAP Headquarters, and placed them under the leadership of local Public Security units at their respective administrative levels.⁵

⁴ Much of this history is also reviewed in Murray Scot Tanner, "The Institutional Lessons of Disaster: Reorganizing the People's Armed Police After Tiananmen," in James C. Mulvenon and Andrew N.D. Yang, eds., *The People's Liberation Army as Organization, Reference Volume v1.0* (Santa Monica, CA, RAND, 2002); See also Dennis Blasko, *The Chinese Army Today: Tradition and Transformation for the 21st Century* (Routledge, 2012); For recent Chinese reviews of this history, see An Zheng, *Zhongguo Jingcha Zhidu Yanjiu* (Research on China's Police System), (2009, Beijing, Zhongguo Jiancha Chubanshe), pp. 92-94; also Gao Wenyong, *Renmin Jingcha Zhuzhi Guanli Guifan* (Standards and Norms of People's Police Organization and Management) (2001, Beijing, Zhongguo Renmin Gong'an Daxue Chubanshe), p. 12-14.

⁵ An Zheng, *Zhongguo Jingcha Zhidu Yanjiu*, pg. 92.

The PAP Leadership System

The PAP's most important and persistent organizational questions have always concerned the allocation of leadership and command over the PAP among the variety of Central and local, police and military stakeholders who oversee these forces. This issue has been at the root of numerous PAP reorganizations since 1949, including in 1983, 1995, and most recently again in the debate over drafting of the 2009 PAP Law.

From its establishment in 1983 until the post-Tiananmen years, the PAP employed a leadership and cadre management system that officially gave government and military leaders “dual leadership” over the PAP, but in reality was largely dominated by local Communist Party officials and their local Public Security departments. Officially called the system of “One Unified and Two Divisions,” China’s State Council and the CCP’s Central Military Commission (CMC) jointly exercised unified leadership (统一领导) over the PAP at the Central level. Local Public Security units at each administrative level carried out management (管理) and command (指挥) of the PAP, including management over the hiring and promotion of PAP cadres (e.g. management and command “divided” by levels). While superficially a system that combined Central and local leadership, it was local Party leaders and local public security units that exercised the dominant leadership. As one police analyst describes the system at this time, “the People’s Armed Police accepted dual leadership (双重领导), but with the ‘two divisions’ (e.g. local leadership) as the main element.”⁶

In the wake of the 1989 protests, when the PAP was perhaps unfairly accused of ineffective performance, leadership, and management over the PAP were reorganized. Through the early 1990s, PLA leaders assumed the leading role in the PAP’s political work, even though China’s successive Ministers of Public Security continued to hold the concurrent post of First Political Commissar of the PAP.

The major reorganization of PAP leadership and management was set forth in a March 1995 joint directive by the State Council and the CMC. The directive “further strengthened the CMC’s leadership over the Armed Police forces.”⁷ The Directive transformed the former leadership and management system of “One Unified and Two Divisions” into a new system labeled “Two Unifications and One Division.” Thereafter, the State Council and CMC carried out unified leadership over the PAP as well as unified management. Public Security departments at all levels of society no longer managed PAP personnel, but did continue to carry out command (指挥) of the PAP at each level.

Activation of PAP Units: Central versus Local Control

The 1995 State Council-CMC Directive preserved the authority of local Party and government officials to activate the PAP forces in their region in the event of emergencies. Local authorities were also granted the authority to place these units under the command of local Public Security forces for carrying out social stability operations. This is the main system of PAP leadership that survived until the passage of the Law of the People’s Republic of China on the People’s Armed

⁶ Tanner, *Institutional Lessons of Disaster*; also An Zheng, *Zhongguo Jingcha Zhidu Yanjiu*, pg. 92.

⁷ Ibid.

Police (the “PAP Law”) in 2009. The power of central-level leaders over the PAP was further strengthened in 1996, when, as part of the PLA’s overall decrease in forces, a group of PLA “Yi”-type (e.g. level two/乙级) mobile divisions were transferred and subordinated to the PAP to serve as mobilized divisions (机动师) for rapid response to “suddenly occurring incidents” (突发事件), in particular as a check against major incidents of unrest. These units, although they were distributed to numerous locations around China, remained directly subordinated to the PAP Headquarters.⁸

Table 1: Units Directly Subordinate to the PAP

PAP Unit	Location
8610	Jinzhou, Liaoning
8620	Xingcheng, Huludao, Liaoning
8630	Tianjin
8640	Dingzhou, Baoding, Hebei
8650	Jinzhong, Shanxi
8660	Yining, Xinjiang
8670	Pingliang, Gansu
8680	Kashi, Xinjiang
8690	Yixing, Jiangsu
8710	Putian, Fujian
8720	Wuxi, Jiangsu
8730	Leiyang, Hunan
8740	Nanchong, Sichuan
8750	Mengzi, Yunnan

Basic Organization of the PAP Leadership Today

The formal organizational structure of the PAP forces still reflects their continued internal division and the inherently amalgamated nature of the force. *China’s National Defense 2006* provided a broad analysis of the nature of the government, public security, and military leadership over the PAP today.⁹

The PAP is described as one component of China’s “armed forces,” and is subordinate to China’s State Council. The State Council and the CMC exercise dual leadership over the PAP. Organizationally, the State Council’s leadership is carried out through the Ministry of Public

⁸ An Zheng, *Zhongguo Jingcha Zhidu Yanjiu*, pg. 93. The unit locations listed in this table are based on the October 2011 edition of the *Directory of PRC Military Personalities*, pp. 91-94. Blasko (2012, pp. 111 & 254, fns. 42, 43), citing the 2010 *Directory of PRC Military Personalities* and reports from Hong Kong’s Information Center for Human Rights and Democratic Movement, notes that at least a portion of the 8680 unit, originally based in Gongyi, Henan, was moved to Kashi in Xinjiang to assist in handling the July 5, 2009 Urumqi riots, but that April 2011 reports indicate the unit was returning to Henan.

⁹ State Council Information Office, *China’s National Defense in 2006*, December 29, 2006.

Security and other “functional departments,” in particular the ministries and bureaus that direct policy for the economic areas relevant to the PAP’s specialized economic units (e.g. Forestry, Transport, Gold, and Hydropower). The State Council is also responsible for the PAP’s budget and its size and number of internal units. The CMC, in turn, is responsible for PAP personnel issues, including the “management of officers, command, training and political work.” As noted above, this leadership is exercised largely through the PLA’s four general departments. The Ministry of Public Security, according to the White Paper, exercises “leadership and command” over the PAP General Headquarters with regard to carrying out public security operations and in terms of developing the PAP’s “relevant capabilities” in this area. The White Paper indicates that the PAP’s provincial and local-level units (e.g. contingents, detachments, and below) are likewise under the “leadership and command” of public security departments at the same administrative level, although this source makes no effort to clarify how local public security leadership and command relate to the forms of military management, command, training and political work noted above.¹⁰

Broadly, the PAP is composed of three main categories of units, each with a distinctive leadership structure. These are: (1) the Internal Guards (内卫) units; (2) four specialized economic security units, including transportation (交通), forestry (森林), hydropower (水电), and gold (黄金) units, and (3) three types of security units that fall under the leadership of the public security system, including border security (边防), firefighting (消防), and guard or bodyguard (警卫) units.

Although PAP units have ranks equivalent to various PLA units, their organizational structure has continued to follow the PRC’s state administrative structure. At the Central level is the PAP Headquarters (*zongbu*; 总部). Each of China’s provinces, autonomous regions, and provincial-level directly-administered municipalities has a PAP contingent (总队). Each of China’s prefectural or municipal-level units have PAP detachments (支队) and each of China’s county level administrative units have either PAP battalions (大队) or companies (中队).¹¹

¹⁰ Ibid.

¹¹ A 2001 public security source notes that in addition to this administrative structure, when work responsibilities require, the PAP can also establish directly subordinate PAP Detachments that are under PAP contingents and accept their direct leadership. These Detachments, in turn, are permitted to establish their own battalions, companies, platoons (*pai*) and squadrons (*ban*). Gao Wenying, pg. 13.

Table 2: PAP Organization

Administrative Level	Corresponding PAP Unit
Central Level	Headquarters (总部)
Provincial Level (inc. Autonomous Regions and Directly Administered Municipalities)	Contingent (总队)
Municipal/Prefectural Level (inc. Autonomous Zhou and Meng)	Detachment (支队)
Country Level (inc. County-Level Cities, Districts, and Qi)	Battalion (大队) or Company (中队)
Township	Police Station (派出所), only in PAP Border Defense units.

PAP General Headquarters (wujing zongbu)

The formal organizational structure of the PAP Headquarters appears to have remained relatively stable over the past decade.¹² The PAP General Headquarters is the PAP’s leadership and command organ, and, in turn, operates under the leadership of China’s State Council and the Central Military Commission. Its primary responsibility, according to public security sources, is to lead and manage the military, political, and logistical work of the PAP Internal Guards Forces, and provide guidance rather than leadership, of the military, political, and logistical work of other forces in the PAP order of battle.¹³ PAP General Headquarters is divided into three main departments—the Command Department (司令部), Political Department (政治部) and the Logistics Department (后勤部). This report found no authoritative evidence that the PAP ever emulated the top levels of the PLA leadership and established an Armaments Department (装备部) at a rank equivalent to its command, political, and logistics departments, nor did it uncover any explanation as to why this is the case.¹⁴ Some sources indicate, however, that the PAP Command Department has a subdepartment called the armaments department (装备部), but this does not appear to hold the rank equivalent to the other three main departments. The PAP General Headquarters itself holds rank equivalent to deputy military region (副军区级).¹⁵

¹² Compare the discussion of the organization in this section with the table in Murray Scot Tanner, “The Institutional Lessons of Disaster: Reorganizing the People’s Armed Police after Tiananmen,” in Mulvenon and Yang, eds. *The People’s Liberation Army as Organization, Reference Volume v1.0*, pg. 634.

¹³ Gao Wenying, pg. 13.

¹⁴ The reasons for the non-establishment of an armaments department are of some interest, because available source material indicates that since Tiananmen and the 1995 reorganization, the PLA’s three (now four) general departments have been one of the major leadership vehicles through which the PLA has maintained its influence over the development of the PAP.

¹⁵ The Chinese People’s Armed Police Force (*Zhongguo renmin wuzhuang jingcha*), June 13, 2011, www.360doc.com/content/11/0613/02/5257523_126539508.shtml. (Hereafter “Chinese People’s Armed Police Force (2011).” The author is indebted to Ken Allen of DGI for introducing him to this source; Chinese People’s Armed Police Force History Department, ed., *Yearbook of the Chinese People’s Armed Police Force, 1999*, (*zhongguo wujing nianjian 1999 nian*), (Beijing, Jiefangjun Chubanshe, 1999) (Hereafter “PAP Yearbook 1999”).

Command Department

The PAP General Headquarters Command Department (司令部)¹⁶ holds the rank of a deputy military region. It is comprised of at least 11 identified departments, bureaus, or offices (most of which, like the Headquarters itself, are also referred to by the bureaucratic rank of “bu”): the General Office (办公室), Operations Department (作战部), Intelligence Department (情报部), Confidential Work Department (机要部), Management Bureau (管理局), Police Affairs Department (警务部), Training Department (训练部), Police Branches Department (警种部),¹⁷ Communications Department (通信部), Armaments Department or Technology and Equipment Department (装备部 or 技术装备部),¹⁸ Policy Research Office (政策研究室), and other directly subordinate work departments (直属工作部).¹⁹

While the PAP Headquarters (HQ) has direct command over its internal guards units, it has also established command departments for each of the four PAP specialized economic forces (transport, hydropower, forestry, and gold). The PAP HQ shares “dual leadership” over these forces with their corresponding state ministries—respectively, the Ministries of Transport and Hydropower, and the State Bureaus for Forestry and Gold Industry Management. These command departments are the PAP Transportation Command Department (武警通指挥部), the PAP Hydropower Command Department (武警水电指挥部), the PAP Forestry Command Department (武警森林指挥部), and the PAP Gold Command Department (武警黄金指挥部).²⁰ Each of these commands, in turn, oversees either numbered or provincially-based specialized PAP corps (总队).²¹

Political Department

General Headquarters Political Department (政治部) like the Command Department holds the rank of a deputy military region. Chinese sources identify at least 13 departments and organs

¹⁶ Some scholars of the PAP writing in English translate the name of this department as the “PAP HQ Headquarters Department.” Solely for stylistic reasons, to avoid repetition of the word “headquarters,” this paper translates *siling bu* as “command department.”

¹⁷ The Police Branches Department and the PAP Forestry Command Department are noted in “State Forestry Bureau and People’s Armed Police Headquarters Hold New Years Symposium” (国家林业局与武警总部举行新春座谈), January 20, 2009, www.forestry.gov.cn/portal/main/s/344/content-6051.html.

¹⁸ An older, more clearly authoritative source (PAP Yearbook 1999, pg. 452) identifies a Technology and Equipment Department (*jishu zhuangbei bu*), while the more recent source (Chinese People’s Armed Police Force [2011]) identifies an “equipment department” (*junshi jiaotong bu*). It is possible these may be two separate departments, but it is also possible that these may be the same department referred to by two different names at different times.

¹⁹ Chinese People’s Armed Police Force (2011); PAP Yearbook, 1999, p. 452.

²⁰ “Ministry of Land Resources and PAP Headquarters Jointly Develop Master Plan for Transformation and Development of PAP Gold Corps,” 国土资源部与武警总部共谋武警黄金部队转型发展大计, June 13, 2012, www.mlr.gov.cn/xwdt/jrxw/201206/t20120613_1109596.htm; “Introduction to the People’s Liberation Army Types of Military Forces” (中国人民解放军军种介绍) Dongnan University Air Force Reserve website, November 5, 2012, <http://gfs.seu.edu.cn/s/269/t/2037/0d/73/i/2/info68979.htm>

²¹ On these ministries and dual leadership, see Changsha City Public Security Bureau website, “Enforcing the Law: China’s Police Types” (执法：中国的警种, 长沙市公安局门户网站), July 30, 2012, www.hnscga.gov.cn/hdjl/jsch/201207/t20120730_349550.htm; also Liaoning Huludao Public Security Bureau website, “China’s Police Types,” (中国警察的种类) December 30, 2011, www.lg.hldgaj.gov.cn/E_ReadNews.asp?NewsID=905.

under the Political Department: the General Office (办公室), Organization Department (组织部), Cadres Department (干部部), Propaganda Department (宣传部), Security Department (保卫部), Liaison Department (联络部), Retired Cadres Department (老干部部), Discipline Inspection Department and Supervision Department (纪检检查部), Culture Department (文化部), Mass Work Department (群工部), PAP Military Courts (武警军事法院), PAP Procuratorate (武警军事检察院), and the People's Armed Police Publishing House (人民武警出版社).²²

A 2009 PAP volume on political work stresses that the PAP's Political work and its Political Departments are led by the PLA General Political Department, the PAP Party Committee(s), and its Commissars.²³ The CCP's "work organs" within the armed police are the PAP political organs. These are responsible for guiding Party activities within the PAP, including leading Party building, the construction of Party branches, the education and development of Party members, Party discipline inspection and work-style education, and carrying out the Party line.

PAP units at and above the level of the *zhidui* (tuan) establish political organs that manage the Party's work within the unit. They are also responsible for leading the political work of the PAP units subordinate to them. Most PAP political organs set up at least six professional departments, which parallel the key offices in the PAP HQ's Political Department:

- Organization department
- Cadres
- Propaganda
- Security
- Discipline Inspection
- Secretariat and Mass Relations

One example of the strengthening of military-style political organization that was specific to the PAP that occurred following Tiananmen and the 1995 reorganization was the establishment in 1997 of a system of PAP military courts and PAP military procuratorates, as distinct from either China's civilian or military judicial institutions. The PAP Party Committee and PAP Headquarters Political Department lead the work of these PAP military legal investigatory and judicial organs—the People's PAP Corps Military Procuratorate the People's PAP Corps Military Court. The PAP Procuratorate accepts professional guidance—but apparently not actual leadership—from the PLA Military Procuratorate, while the PAP Court likewise receives professional guidance from the PLA Military Court.²⁴

²² Qin Huaibao, et al, *Concepts of Political Work in the Chinese People's Armed Police* (Zhongguo Wujing Zhengzhi Gongzuo Gailun;), (Beijing, Renmin Wujing Chubanshe, 2009), pp. 376-377; *Zhongguo Junshi Baike Quanshu (Di Er Ban)*, Xueke Fence, *Jundui Zhengfa Gongzuo* (China Military Encyclopedia (Second Edition) Curriculum Set, Military Political-Legal Work), (Beijing, Zhongguo Dabaike Quanshu Chubanshe, 2006),pp. 44-45, 92-93; Chinese People's Armed Police Force (2011); *PAP Yearbook, 1999*, pg. 453.

²³ Qin Huaibao (2009), pp. 376-377.

²⁴ *Zhongguo Junshi Baike Quanshu (Di Er Ban)*, Xueke Fence, *Jundui Zhengfa Gongzuo* (China Military Encyclopedia (Second Edition) Curriculum Set, Military Political-Legal Work), (Beijing, Zhongguo Dabaike Quanshu Chubanshe, 2006),pp. 44-45, 92-93. This source appears to indicate that the jurisdiction of these courts is limited to the non-public security portions of the PAP force—the internal guards forces, the gold, forestry, hydropower, and transport forces.

Logistics Department

The PAP General Headquarters Logistics Department (后勤部) holds a lower rank than that of the Command and Political Departments, that of a corps leader grade unit (正军级). Within it, at least ten departments have been identified: the Ordnance Department (军械部),²⁵ Finance Department (财务部), Transport Department (运输部 or 军事交通部),²⁶ Barracks Department (营房部), Petroleum and Lubricants Department (油料部), Medical/Sanitation Department (卫生部), Uniforms and Clothing Department (补装部), Supply Department (给养部), Materials Department (物资部), and an Auditing Department (审计部).

At lower administrative levels of the system, the PAP border defense, fire-fighting, and guards/bodyguards PAP units under public security leadership have financial supervision, oversight and auditing structures essentially akin to public security units—again suggesting a good deal of local Party and government control over at least these aspects of their logical work. According to public security materials, in 1994, “based on the public security border defense, fire-fighting, and guards corps having been withdrawn from (脱离) the leadership of the People’s Armed Police forces,” and placed under separate financial listing of the state financial system, the MPS Auditing Office established a separate auditing branch for these “active duty” public security forces. The MPS has continued issuing auditing directives for these three units since.²⁷

Command and Leadership in the PAP Law Debate

In 2009 the PAP’s longstanding issues of institutional leadership and control again came to the fore during the debate over the passage of the PAP Law, and prompted a major revision in the draft law that ultimately kicked the issue down the road for the State Council and CMC to deal with at a later date. Available data on local emergency regulations, however, indicate that Chinese authorities have handled this issue since 2009 by reverting, at least formally and temporarily, to a relatively strict version of mid to late 1990s State Council and Central Military Commission joint directives governing how and when local governments and Party committees can mobilize and activate PAP units in the event of social unrest or other emergencies.

The formal drafting process for the PAP Law began in 1995, when the first proposal for drafting such a law was submitted before the National People’s Congress, and many legislators indicate that the drafting process took more than a decade. In November 2002, the PAP Party Committee put forward a legislative proposal to the Central Military Commission.²⁸ The drafting committee,

²⁵ One source gives the name of this department as the *jun xu bu* (possibly military requirements department). Chinese People’s Armed Police Force (2011).

²⁶ An older, more clearly authoritative source (PAP Yearbook, 1999, pg. 454) identifies a transport department referred to as the *yunshu bu*. A more recent source (Chinese People’s Armed Police Force [2011]) identified a “military transportation department” (*junshi jiaotong bu*). These may refer to the same department under different names at different times.

²⁷ Guo Ying, *Public Security Auditing* (Gongan Shenji; 公安审计), (2004 Beijing, People’s Public Security University Press), pp. 8-9. According to this same source, the MPS issued further directives for these units in September 2003.

²⁸ “Wujing Budui Silingyuan jiu ‘Wujing Fa’ Zhiding deng Wenti Da Jizhe Wen,” (The Commander of the People’s Armed Police Answers Reporters Questions on the Law’s Drafting and Other Topics), April 27, 2009, at www.gov.cn/gzdt/2009-08/28/content_1403586.htm; on the length of the drafting process and the involvement of all

which was formed by the PAP Headquarters, apparently included officials from the CCP Central Political-Legal Committee, the CMC's Legal Affairs Bureau (法制局), the National People's Congress (NPC) Standing Committee (NPC/SC) Legal Committee and the NPC/SC Legislative Affairs Commission, the State Council Legal Affairs Bureau, and the Legal System Bureau of the Ministry of Public Security. At the outset of 2003, the PAP Law was placed on the legislative plan of the CMC. The proposal began being included in the State Council's legislative plan in 2007, and in 2008 it was first added to the legislative plan of the National People's Congress Standing Committee. The Eighth meeting of the Eleventh NPC Standing Committee gave the law its first reading and review in April 2009, and it was passed by the Standing Committee on August 27 of that year.²⁹

According to then-Commander of the PAP General Wu Shuangzhan, China needed to draft the PAP Law to provide a clear, unified, and legal basis for the PAP's organization and activities. Wu noted that in the years since the modern PAP was established in 1983, its command structure and responsibilities had only rested upon "Party Central documents, PLA- and PAP-related regulations, and some relevant regulations within a few State-promulgated laws." Many of these regulations, Wu noted, are of a relatively high level of secrecy, in particular directives such as those regarding PAP use of firearms during mass protests and riots. So it was important to transform those regulations and clauses that could be openly published into a public law.³⁰

Debates over leadership and control over the PAP became more public when the April 2009 draft was reviewed and discussed by the NPC/SC. The April draft, in contrast to the 1995 State Council-CMC directive, contained only a few relatively brief clauses concerning which units of government had the authority to mobilize PAP units in response to a crisis. As the debate among the NPC/SC delegates made clear, the law was never intended to fully replace CMC and State Council regulations as a guide for mobilizing the PAP. But in keeping with the 1995 CMC-State Council regulations, the draft did preserve the authority of local governments to activate PAP forces when they were needed, and specified that governments down to the county level could mobilize the PAP.³¹ In doing so, however, the draft used language that was less explicit than the 1995 or 1980s regulations. The April 2009 language simply noted implicitly that there would be

these Central organizations, see the comments of NPC Standing Committee members discussing the draft in April 2009, at www.npc.gov.cn/npc/xinwen/2009-04/29/content_1500332.htm.

²⁹ "Wujing Budui Silingyuan jiu 'Wujing Fa' Zhiding deng Wenti Da Jizhe Wen," (The Commander of the People's Armed Police Answers Reporters Questions on the Law's Drafting and Other Topics), April 27, 2009, at www.gov.cn/gzdt/2009-08/28/content_1403586.htm.

³⁰ "Wujing Budui Silingyuan jiu 'Wujing Fa' Zhiding deng Wenti Da Jizhe Wen," (The Commander of the People's Armed Police Answers Reporters Questions on the Law's Drafting and Other Topics), April 27, 2009, at www.gov.cn/gzdt/2009-08/28/content_1403586.htm.

³¹ National People's Congress Standing Committee "Full Text and Legislative Explanation of the People's Armed Police Law (Draft)," [Renmin Wuzhuang Jingcha Fa (Cao'an) Quanwen ji Shuoming, 人民武装警察法(草案)全文及说明]. Hereafter in this paper this draft is referred to here as the "April 2009 PAP Law Draft." No English translation of this draft was apparently issued, and all translations in this paper are by the authors. The original source is reportedly the NPC/SC as issued through the NPC's China People's Congress Net (中国人大网), and the original date of publication (发布日期) is listed as April 28, 2009. Directions issued along with the draft indicate that this draft was debated by the Eleventh NPC Standing Committee at its Eighth Meeting, and that comments on this draft are to be returned to the NPC Standing Committee or its Legal Committee in Beijing no later than May 31, 2009. This draft was re-posted in 2009 on the website of the Qingdao City People's Congress Standing Committee, at <http://rdcwh.qingdao.gov.cn/n8146584/n8152591/n8153590/8381107.html>.

times when county-level and higher government and police authorities would need to activate the PAP. The April 2009 draft language, however, made clear that other presumably unpublished directives from the State Council and CMC existed or would be issued in the future, and that these would more clearly define the circumstances and authority relationships required for activating the PAP than the text of the PAP law would. Article 7 of the April Draft made clear that when local authorities did activate the PAP, they were required to do so in compliance with these other State Council-CMC Directives. Moreover, the April 2009 draft echoed recent trends in civilian police regulations that recognized the tendency of some authorities to abuse their power and issue illegal orders to police, and strengthened police powers to resist such orders. The April 2009 draft authorized PAP forces to refuse any such illegal orders, and report them up their chains of command. Article Seven of the April draft read as follows:

At times when county-level or higher People's Governments and their Public Security organs must activate and employ People's Armed Police Forces to carry out security protection duties, they must act strictly in accordance with the limits of authority for approval and procedures as regulated by the State Council and the Central Military Commission.

No organization or individual is permitted to activate or employ People's Armed Police forces in violation of regulations. In the event that any [organization or individual] illegally activates or employs the People's Armed Police forces, the People's Armed Police forces should refuse to carry out [these orders], and should immediately report this to superior levels.

Article 7 sparked significant debate and several calls for revision among the NPC/SC delegates, according to online NPC records of the April 2009 meeting.³² Some delegates supported the wording as is. But several clearly objected to this authority being granted to officials at the county level. Some argued that China presently faced enormous numbers of mass protests, most of which were motivated by legitimate popular grievances (“contradictions among the people”), and they feared that county officials might be tempted to misuse the PAP to suppress these protests in ways that would only exacerbate these protests and make local tensions even worse. These delegates cited longstanding official Central policy on the handling of “mass incidents” to the effect that, while the state needed the capability to respond to dangerous riots and protests with force when necessary, the preferred way of dealing with such incidents was by encouraging local officials to consult with protestors, deal with real problems, and engage in patient, non-violent, educational and propaganda work. If it were too easy for county level officials to

³² These NPC Standing Committee discussions were originally posted on the China People's Congress Network (Zhongguo Renda Wang) in Fall 2008 and Spring 2009. These Chinese language summaries include short, paragraph length statements by participants in the subgroup discussion. The summaries consulted for this paper were obtained at the following sites: www.npc.gov.cn/npc/xinwen/2009-04/29/content_1500332.htm; www.npc.gov.cn/npc/xinwen/2009-04/29/content_1500329.htm; www.npc.gov.cn/npc/xinwen/2009-04/29/content_1500328.htm; www.npc.gov.cn/npc/xinwen/2009-04/29/content_1500325.htm; www.npc.gov.cn/npc/xinwen/2009-04/29/content_1500323.htm; www.npc.gov.cn/npc/xinwen/2009-04/29/content_1500320.htm; www.npc.gov.cn/huiyi/lfzt/fzjzf/2008-11/18/content_1458795.htm; www.npc.cn/huiyi/lfzt/rmwzjcf/node_9948.htm; www.npc.gov.cn/huiyi/lfzt/rmwzjcf/2009-04/16/content_1497940.htm; www.npc.gov.cn/npc/xinwen/2009-04/29/content_1500327.htm;

mobilize PAP forces, these delegates insinuated, local officials would be too likely to rely on force as their first option.

One delegate, Bai Keming, captured a number of these themes in his comment on the draft:

Regarding this question of whether or not it is necessary to mobilize the police forces, we must certainly be careful. Because right now a large number of [incidents] are contradictions among the people; concerning mass incidents, the overwhelming majority are also contradictions among the people. Regarding these contradictions among the people, when we handle them, we must to a greater degree do ideological work and educational work; but at times when it is necessary, we must also decisively use police force, and prevent these situations from turning more evil. From the standpoint of our work practice, we must decide with great care whether or not to deploy the police force. I believe it is not good to take such an authority and devolve it to the level of the county [authorities]; the authority for mobilizing police force should be retained at the two levels of the province and the municipality [district]. These days, communications and information [flows] are extremely developed, and the two levels of the province and the municipality [district] can get a grasp on what is going on with a suddenly-occurring incident very quickly. So entrusting the decision on whether or not to mobilize police forces to a somewhat higher [administrative] level is a little more stable and appropriate.³³

Some NPC/SC officials cited more narrowly administrative and organizational objections to the draft language in Article 7. They noted that the State Council, Central Military Commission, and PAP Headquarters had, over the years, already adopted a number of relatively detailed regulations governing the deployment and mobilization of the PAP. At least one delegate noted that the draft law was not specific enough about which local government units would actually have the authority to deploy PAP units—the local government collective leadership, the county government head, the county public security chief, etc. Broadly, the largest number of delegates whose comments were reported favored drafting the authority to mobilize the PAP much more narrowly and strictly, and granting it only to government officials at the provincial and perhaps the municipal/district level, but not to county level officials.³⁴

When the NPC approved the final draft of the PAP Law in August, these arguments were taken on board, and the version of Article Seven contained in the April Draft had been dropped.³⁵ In its

³³ See www.npc.gov.cn/npc/xinwen/2009-04/29/content_1500327.htm.

³⁴ This point was particularly prominent in the April 29 NPC/SC subgroup session on the PAP's duties and institutional authorities and responsibilities (关于人民武装警察的任务和职责——分组审议人民武装警察法草案发言摘登 [四]). See People's Congress Network at www.npc.gov.cn/npc/xinwen/2009-04/29/content_1500327.htm.

³⁵ Apparent Text of PRC Armed Police Law Adopted at NPC Session 27 Aug. CPP20090827172011 Beijing Xinhua Domestic Service in Chinese 1317 GMT 27 Aug 09. [Apparent text of the Law of the People's Republic of China on the People's Armed Police, approved at the 10th Session of the 11th National People's Congress Standing Committee on 27 August 2009]. Beijing, 27 Aug (Xinhua) -- Law of the People's Republic of China on the People's Armed Police [PAP] (Approved at the 10th Session of the 11th National People's Congress [NPC] Standing Committee on 27 August 2009)

place was an Article Eight that omitted the wording that had made clear that county-level governments and public security departments had the authority to activate and employ PAP units, as had been the case in the 1980s and the 1995 State Council-CMC directive. In its place, the PAP Law asserted that any deployment or employment of PAP forces had to be carried out in accordance with “the principles of strict review and approval and law governed policing.” But the law did not indicate the legal documents or Party-state directives in which these “principles” were defined. And most importantly, in lieu of a clear or even implicit grant of authority to local government officials to activate and employ PAP, the Law issued a vague promise that the State Council and CMC would issue “specific approval powers and procedures”:

Article 8 The principles of strict review and approval and law-governed policing shall be adhered to in deploying and using PAP units to carry out security tasks. Specific approval powers and procedures shall be prescribed by the State Council and the CMC.

No units or individuals may deploy or use PAP units in violation of rules and regulations. In the event they are deployed and put to use in violation of rules and regulations, PAP units shall refuse to carry out tasks and immediately report the situation to higher levels.

Although the final PAP Law did not endorse the authority of local governments and public security forces to mobilize PAP units on their own, other sections of the law did reaffirm previous grants of authority for these local officials at the county level and above to deploy and command PAP units supporting Public Security, State Security, and other operations within their region. For example Article 10 of the final law, like Article Nine of the April 2009 Draft, enumerated several types of actions that PAP units would be permitted to carry out when they were acting as part of “deployments” planned by county-level and higher local governments and public security units—thereby recognizing that PAP units would act under the guidance and arrangements of these local authorities. In revising the law from the April to the final draft, this list of actions remained virtually unchanged and was not narrowed in any way. Most importantly, these tasks, listed below, included dispersing crowds that threatened social order:

Article 10: PAP units may take the following measures when carrying out security tasks according to plans made by the public security agencies of people’s governments at or above the county level:

1. Inspecting personnel, articles, and conveyances in security areas and stopping those that are not permitted to enter or exit pursuant to rules and regulations and taking necessary measures to stop those that forcibly enter or leave the areas;
2. Questioning on the spot or checking the documents of people suspected of breaking the law or committing crimes and inspecting suspicious articles and conveyances during armed patrols with the consent of their commanders on the scene;
3. Assisting in enforcing road traffic control or control on the scene;
4. Taking necessary measures to stop or disperse crowds that gather to endanger social order or the security of targets of protection services; and

5. Learning related information from relevant units and personnel or conducting necessary surveillance on the scene as required for the performance of duties.

The final draft of the law also retained the authority for PAP units to decline to carry out illegal orders and to report these to higher levels.

Some Chinese legal officials contend that the State Council-CMC dual leadership system endorsed by the PAP Law did not represent a major departure from past practice. Speaking right after the law's passage, NPC/SC official Wang Shangxin described the dual leadership system as the one that the PAP had been practicing for many years, and said it had been proven appropriate for the PAP's role through years of practice.³⁶

Tuo Chengxiang, Director of the General Office in the PAP Headquarters, speaking in a 2009 interview, described the division of leadership responsibilities between the State Council and the CMC this way. The State Council takes primary responsibility for assigning the PAP's regular responsibilities, its scale, the number of PAP personnel, command, professional construction, its financial and material guarantees, and organizing and carrying out leadership of the PAP corps through the concerned professional departments. The CMC takes primary responsibility for the organizational structure of the PAP, management of its cadres, command training, political work, and carries out leadership over the PAP via the four general departments of the PLA.³⁷

“Command divided by levels” means that local governments carry out command over the PAP forces at the corresponding level during security operations, but do so according to specific authorization and concrete procedures as directed by the State Council and CMC.³⁸ The law itself does not further specify these Central-local command relationships. Then-PAP Commander Wu Shuangzhan, in an interview, stressed that the relationship permitted local governments and their public security forces to “reasonably” make use of PAP forces when needed.³⁹ A CCP Central Party School specialist cited in a Xinhua report argued that in an era of many mass protests, the law's command relationships would help prevent local governments from capriciously or wantonly making use of the PAP.⁴⁰

According to Chinese legislative practice, the detailed rules for enacting and enforcing a major law like the PAP Law would typically be embodied in a set of implementing regulations or

³⁶ This is according to NPC/SC Legislative Affairs Commission Criminal Law Office Director Wang Shangxin. Xin Jing Bao, August 28, 2009, at <http://news.qq.com/a/20090828/000493.htm>.

³⁷ “Expert Carefully Explains the Leadership Structure of the People's Armed Police.” (zhuanjia xiangjie Wujing lingdao tizhi: Guowuyuan he Zhongyang shuangchong lingdao), August 27, 2009, <http://npc.people.com.cn/GB/14957/53050/9941814>.

³⁸ Tuo Chengxiang, PAP Gen. HQ General Office. “Expert Carefully Explains the Leadership Structure of the People's Armed Police.” (zhuanjia xiangjie Wujing lingdao tizhi: Guowuyuan he Zhongyang shuangchong lingdao), August 27, 2009, <http://npc.people.com.cn/GB/14957/53050/9941814>.

³⁹ “The PAP Law, After Second Reading, is Passed. The Legislation Prevents Local Governments Capriciously Using the PAP,” (Wujing Fa Er Shen Ji Tongguo, Lifa Fang Difang Lanyong Wujing) Xinhua report, August 29, 2009, reprinted in http://bzrb.newssc.org/html/2009-08-29/content_667711.htm.

⁴⁰ “The PAP Law, After Second Reading, is Passed. The Legislation Prevents Local Governments Capriciously Using the PAP,” (Wujing Fa Er Shen Ji Tongguo, Lifa Fang Difang Lanyong Wujing) Xinhua report, August 29, 2009, reprinted in http://bzrb.newssc.org/html/2009-08-29/content_667711.htm.

directives drafted by the key responsible bureaucracies—in this case the State Council and the Central Military Commission—in the months or years following the promulgation of the law. And following the PAP Law’s passage, some legal specialists called for precisely these sorts of detailed regulations to clarify the issues of which levels of government had the authority to mobilize the PAP and under what circumstances. Because major Chinese laws are typically very broadly written and vague, and critical issues of enforcement are often “kicked down the road,” the drafting process for these implementing regulations and directives can often take nearly as long as the process for drafting the original law. The research for this paper has not yet uncovered any evidence that new State Council-CMC directives have been issued since the PAP Law’s passage that define local Party and government authority for activating the PAP. This could be due to the secrecy of any such regulations, and it could just as easily be due to the difficulty of reaching agreement on any such regulations.

But a review of several local government plans and directives on handling mass protests, riots, fires, and other crises that have been issued since the PAP Law’s passage reveals some of the rules and procedures by which some local authorities are permitted to activate the PAP, or obtain permission from higher levels for doing so. These plans and directives indicate that instead of drafting new regulations governing local authorities’ activation of the PAP, these localities are being asked to strictly comply with existing regulations that date back more than ten years.

Municipal and county government emergency response plans issued in 2010-2012 include directions for employing both local public security and armed police forces. In the event local Party Committees and governments need to activate PAP forces, their plans require them to strictly comply with a pair of directives jointly in 1997. These directives are entitled “Notice of the CCP Central Committee General Office and the State Council General Office on Circulating ‘Regulations Regarding Permission Authority for Deployments of People Armed Police Forces and Activation and Use of Forces’ and ‘Regulations Regarding Permission Authority for Deployments of People’s Armed Police Forces and Activation and Use of Forces in the Beijing Area’” (中共中央办公厅、国务院办公厅关于印发“关于中国人民武装警察部队部署和兵力调动使用批准权限的规定”和“关于北京地区中国人民武装警察部队部署和兵力调动使用批准权限的规定”的通知). The Document is numbered CCP Central Committee General Office Document No. 2 [1997].⁴¹

⁴¹ These 1997 Central Documents are referenced for activating PAP forces in the following local directives: 径口镇群体性治安事件应急处置预案 (Jingkou Zhen Emergency Response Plan for Mass Public Security Incidents), dated October 9, 2011, at [www.bobai.gov.cn/\(S\(yrmiqs45xqizlum2pprtgg55\)\)/Government/PublicInfoShow.aspx?Id=3527](http://www.bobai.gov.cn/(S(yrmiqs45xqizlum2pprtgg55))/Government/PublicInfoShow.aspx?Id=3527); 北票市处置大规模群体性事件应急预案 (Beipiao Municipality Emergency Response Plan for Containing Large Scale Mass Incidents), Published August 25, 2011, at www.bp.gov.cn/news/?id=9443; 横山县处置突发公共事件应急预案 (Hengshan County Response Plan for Handling Sudden Public Emergency Incidents) Issued August 28, 2010, available at Hengshan County Government website, <http://hengshan.678114.com/Html/zhengfu/zhengwu/20100828CE3B1FFF.htm>.; 安康市公安局处置群体性治安事件工作预案 (Ankang Municipality Public Security Organs’ Work Plan for Controlling Mass Social Order Incidents), Issued July 8, 2010, at <http://yjb.ankang.gov.cn/Article/class4/class20/201007/55.html>. The 1997 Central Directives are also referenced in the following emergency response plans, which either have unclear issuance dates, or were issued before the passage of the PAP Law. 泰安市大中型水库移民后期扶持工作群体性事件应急处置预案 (Taian Municipality Emergency Response Plan for Coping with Mass Incidents following

The research for this chapter has been unable to locate the full text of Central General Office Document No. 2 (1997). But the texts of these various local directives indicate that Document No. 2 (1997) contains a system for activating PAP forces that distinguishes different size and rank PAP forces, and prescribes different administrative levels of the Chinese system that are authorized to approve the activation of these units.

The Hengshan directives note, for example, that

In activating People's Armed Police forces to take part in containing sudden social order incidents, strictly adhere to the directives in CCP Central General Office Document 2 (1997). If activating a squadron (中队) or fewer than 100 police, the City Party Committee and City Government must approve, and the case must be reported to the Shaanxi Provincial Public Security Bureau and the Shaanxi PAP General Corps.

The Ankang Municipality directives prescribe a similar system, and notes criteria under which Central Public Security and PAP forces must be notified in the event of very large PAP deployments.

In activating People's Armed Police forces to take part in containing sudden social order incidents, strictly adhere to the directives in CCP Central General Office Document 2 (1997). If activating a squadron (中队) or fewer than 100 police, the City Party Committee and City Government must approve, and the case must be reported to the Shaanxi Provincial Public Security Bureau and the Shaanxi PAP General Corps. If activating a group (大队) or more than 300 police, the Provincial Public Security Bureau must approve, and the case must be reported to the Provincial Party Committee, the Provincial Government, and the Shaanxi PAP General Corps. If mobilizing a detachment (支队) or fewer than 1,000 police, the Provincial Party Committee and Provincial Government must approve, and the activation must be reported to the Ministry of Public Security and the PAP Headquarters.

An examination of local government directives indicates that the State Council and Central Military Commission have issued different regulations governing the authority and procedures for local governments to mobilize PAP Gold, Forestry, Hydropower, and Transportation units. In 2003 the Party Central Committee, the State Council and CMC issued "Directive of the CCP Central Committee General Office, the State Council General Office, and the Central Military Commission General Office Regarding Regulations on Permission Authority for Deployments, Activation, and Use of People Armed Police Forces Gold, Forestry, Hydropower, and Transportation Forces (Central General Office Document No. 14 [2003])" (中共中央办公厅、国务院办公厅、中央军委办公厅关于中国人民武装警察黄金、森林、水电、交通部队部署和兵力使用批准权限的规定),》(中办发〔2003〕14号). The full text of this document is also, apparently, unavailable. But the available excerpts indicate that this document requires

Relocation of Persons Resulting from Large and Medium Scale Dam Construction), published at www.esafety.cn/Common/ShowDownloadUrl.aspx?urlid=0&id=59121.

local governments to first seek permission for emergency deployments from higher levels before sending these units to accompany public security forces (it does not indicate to which levels of local government this directive applies). In the event of extreme emergencies, and if the number of forces does not exceed a group (大队) in size, localities may first deploy the units while simultaneously informing higher levels.⁴² It is unclear whether this directive is still being used for guidance by local authorities to clarify the uncertainties left by the 2009 PAP Law.

Conclusion

The process for drafting the 2009 People's Armed Police Law reinvigorated longstanding debates over the optimal balance of Central and local leadership and command authority over the PAP. In particular, some officials were clearly concerned that lower level local officials—especially county leaders—would abuse their authority to mobilize PAP forces to suppress demonstrators. It appears that in response, the PAP Law was revised so that it did not provide explicit legal authority for county and other local officials to mobilize the PAP. We have not yet found evidence that the State Council and Central Military Commission have—as the PAP Law suggests—issued any new directives on local mobilization of the PAP. Instead, a review of local emergency plans adopted since the PAP Law's passage suggests higher level authorities may have settled, for now, for stricter enforcement of a mobilization system passed in 1997, under which county and municipal authorities have to seek approval from higher level Party and Public Security authorities before mobilizing relatively small PAP units. The number and rank of higher level authorities who must be consulted and/or notified if the PAP are to be notified appear to increase as the number of PAP forces to be mobilized increases. But Central authorities do not appear to have attempted to take authority all the way to Beijing, and for now appear to be comfortable with authority to mobilize small and medium size PAP forces nested at the provincial and municipal levels.

⁴² 攀枝花市人民政府办公室关于发挥武警森林部队职能作用的意见（攀办发〔2005〕54号）； posted at www.67863.cn/news/show.php?itemid=7766.

Chapter Thirteen: The PLA's Wartime Structure

Dean Cheng

The Chinese People's Liberation Army (PLA) has not fought a war since the 1979 war" with Vietnam. In the intervening 30 years, however, it recognizes that the nature of warfare has fundamentally changed, from conducting "Local Wars Under Modern Conditions," to "Winning Local Wars Under Modern, High-Technology Conditions" to "Local Wars Under Informationized Conditions." This evolution in how it conceives of future wars is a reflection of the broader array of changes in the nature of the global economy, technology, and society. As the latter aspects have evolved, so has the nature of warfare.

Consequently, how the PLA prepares for future wars, including its command and control functions, has also had to evolve, in order to accommodate and adapt to the shifting nature of warfare. In this regard, the PLA has demonstrated that it is a learning organization. As it has observed and analyzed foreign wars of the past three decades, it has sought to incorporate lessons into its military theory (军事理论), and from there to its organization (as well as its training and equipment).

By examining how the PLA has written about the evolution in future wars, and as important how they conceive of command and control of future conflicts, it is possible to derive a sense of how the PLA would organize itself in the event of future conflict. This chapter will therefore examine changes in PLA doctrine, with particular attention on the growing importance of jointness, itself an evolving concept, and how that, in turn, has affected Chinese discussions of their wartime command and control structure.

Evolving Concepts of Modern Warfare

Since the early 1990s and the Gulf War, the PLA has been reforming its conception of how modern wars will be fought. In the wake of Operation Desert Shield/Desert Storm, PLA theorists concluded that modern high technology had effected a fundamental shift in modern warfare. To accommodate these changes, the PLA in 1999 issued a new series of manuals and regulations to prepare itself to fight "local wars under modern, high-technology conditions (高技术条件下局部战争)."

These "New Generation Operations Regulations (新一代作战条令)", which is the generic term for documents that include "essentials" (纲要) and "regulations" (条令), constituted a wholesale revision of operational doctrine, affecting every aspect of the PLA, from its conception of future wars to its training and organization. This new guidance on joint operations apparently was issued in at least two parts.

The first is *The Essentials of Joint Campaigns of the Chinese People's Liberation Army* (中国人民解放军联合战役纲要). These probably provide overall guidance as to the importance and method of undertaking joint operations.¹ In addition, there are the "Joint Campaign Regulations"

¹ Gao Yubiao, Chief Editor, *Joint Campaign Course Materials* (Beijing, PRC: Academy of Military Science Publishing House, August 2001), p. 12.

(联合作战条令). These Regulations likely provide not only more specific guidance on the conduct of joint campaigns, but also for training, logistics and maintenance support, and various aspects of “high-tech” combat, such as air defense. Together, these two sets of documents provide a common foundation for operational thinking by all arms of the PLA. As important, the service campaign regulations, as well as regulations for the Second Artillery and for support and logistics, were explicitly made subordinate to the joint campaign regulations.² Joint operations inform service-led, combined-arms operations, indicating that, to the PLA, joint operations are more important, and more decisive, than combined-arms operations.³

The issuance of these new Regulations occurred in the context of what the PLA perceived as a fundamental, global military transformation, characterized by the shift from “local war under modern conditions,” i.e., industrial-era warfare, towards “local war under modern, high-technology conditions.” The new type of wars is marked by several key characteristics:

- The quality as well as the quantity of weapons matters. The side with more technologically sophisticated weapons will be able to determine the parameters of the war and effectively control its scale and extent.
- The battlefields associated with such wars are three-dimensional, and extend farther and deeper into the strategic rear areas of the conflicting sides. Consequently, military operations will occur over an ever broader physical space (including outer space), with fewer areas out of an opponent’s potential reach.
- The war is typically marked by high operational tempos conducted around the clock, under all-weather conditions.
- The fundamental approach to warfare is more complex. Local wars under modern, high-tech conditions not only incorporate operations typical of local wars under modern conditions, but also place much greater emphasis on joint operations, while also incorporating more aerial combat, long-distance strike, and mobile operations.
- Finally, the role of command, control, communications, and intelligence (C3I) is paramount. C3I functions are essential to successful implementation of such wars; consequently, the ability to interfere with an opponent’s C3I functions also is much more important.⁴

In order to successfully engage in local wars under modern, high-tech conditions, the PLA promulgated the campaign basic guiding concept of “integrated operations, key point strikes.” The campaign basic guiding concept provides the fundamental theoretical basis for the planning

² The term “保障” does not seem to have a direct counterpart term in English. It encompasses a range of combat support and combat service support activities, such as camouflage, meteorological and hydrographic support, battlefield management, as well as some aspects of reconnaissance and intelligence. It is commonly linked to logistics (后勤), as in “后勤与保障,” but also touches on aspects of political work, equipment maintenance and security, financing, etc. Comprehensive Dictionary Editorial Committee, *Comprehensive Dictionary, Military Volume* (Shanghai, PRC: Shanghai Dictionary Publishing House, 2003), pp. 27, 90.

³ AMS Strategies and Campaigns Department, “New Developments in Campaign Theory,” *Military Art* (#4, 1999), p. 17.

⁴ Chinese Military Encyclopedia Committee, *Chinese Military Encyclopedia*, Vol. II, (Beijing, PRC: Academy of Military Science Publishing House, July 1997), pp. 126-127. Note that subsequent PLA writings have adopted the concept of command, control, communications, computers, intelligence, surveillance, and reconnaissance, or C4ISR.

and organization of military campaigns, directing campaign training, planning weapon system and equipment research and production, and enunciating modern campaign practices.⁵

“Integrated Operations, Key Point Strikes”⁶

The campaign basic guiding concept as enunciated in the 2000 edition of *The Science of Campaigns* comprised two elements.

“Integrated operations (整体作战)” refers to the idea of integrating forces, domains, and activities. Ideally, the planning and conduct of campaigns should be undertaken as a holistic, integrated effort, with the participating forces, areas of operation, and types of activities all contributing towards a common objective, leading to victory.

- *Integrating forces* entails not only employing land, sea, air, and Second Artillery forces, but all the elements of the armed forces, including the People’s Armed Police (PAP), reserve forces, and militia. It also entails integrating not only the armed forces, but also mobilizing such civilian and commercial resources as might be necessary.
- *Integrating domains or battlespaces* involves, first, taking a holistic view of the land, sea, and air battlefields; but it also requires paying attention to both the front-line and rear areas. This is especially important in light of the greater reach of modern weapons, so that what was once the strategic depth is now vulnerable to aerial attack. It also means incorporating both outer space and the information realm (both the electromagnetic spectrum and computer networks) into a single concept of the battlespace.
- *Integrating campaign phases and activities* allows PLA commanders to engage in the full range of offensive and defensive operations by all forces, in order to maximize the chances of defeating the enemy. This includes positional warfare, mobile warfare, and guerrilla warfare, as well as the full range of combat activities, such as air defense operations, air strikes, artillery and missile strikes, and electronic warfare. It also entails integrating combat and combat support and combat service support functions, including logistics support.

With the integrated forces, the commander is expected to undertake “key point strikes (重点打击).” That is, the commander is expected to strike at the most important vulnerabilities, at key moments, with a concentration of his best available forces. *Key points* are those parts of the enemy’s forces and infrastructure that bind together the “system of systems” that comprise modern militaries, effectively preventing them from effective interoperation. Typical “key points” include an opponent’s C4ISR infrastructure. Specific weapons are often a lower priority than the systems that target and allocate them.

The objective is to paralyze an opponent, rather than necessarily to annihilate them. Indeed, a hallmark of local wars under modern, high-tech conditions is the prevalence of wars of paralysis,

⁵ Wang Houqing and Zhang Xingye, Chief Editors, *The Science of Campaigns* (Beijing, PRC: National Defense University Publishing House, 2000), p. 88.

⁶ This section draws upon Wang Houqing and Zhang Xingye, *The Science of Campaigns* (Beijing, PRC: National Defense University Press, 2000), pp. 88-101.

eclipsing wars of annihilation. What will keep an opponent paralyzed over the course of a campaign may evolve, however, and therefore, while “key point strikes” will be conducted throughout a campaign, the specific targets are likely to shift over its course.

Joint Campaigns and Their Command Structure

The ability to implement “integrated operations, key point strikes” relies on the conduct of joint operations (联合作战). The need for the PLA to be able to conduct joint operations was made apparent from Chinese observations of the first Gulf War, where American forces, in particular, implemented the doctrine of “AirLand Battle.” This entailed the close cooperation of air and ground forces, at the strategic, operational, and tactical levels.

For the United States, the doctrine of AirLand Battle built upon a history of joint operations that dated back at least to the Second World War, when air-ground, air-naval, and ground-naval operations occurred regularly in all the theaters of war. This had been further encouraged, and even mandated, by the results of the Goldwater-Nichols Act, which had made joint experience a prerequisite for promotion.

For the PLA, however, joint operations were much more alien. PLA military experiences from the Chinese Civil War and the war against Japan, through the various conflicts in Korea, India, and Vietnam, had all been primarily land combat, with no naval and minimal air force participation. Much of the PLA’s training efforts in the 1980s had been focused on combined arms operations (合同作战), involving greater cooperation between branches (兵种), rather than across services (军种). Thus, the need for the PLA to shift to a more joint approach to warfare constituted a fundamental shift in its approach to warfare.

Yet, the synergies exhibited by western forces through the conduct of joint operations were such as to make adopting a more joint approach to warfare imperative. Only by having the various services work together could the PLA hope to match potential opponents across the range of potential battlespaces, including not only the traditional land, sea, and air domains, but increasingly outer space and the electromagnetic sphere. Moreover, “local wars under modern, high-tech conditions” required a range of more specialized capabilities—not just armor units, fighter squadrons, and destroyer flotillas, but also special operations forces, psychological warfare units, etc.⁷

Consequently, the new regulations governing joint operations were apparently the capstone of the “New Generation Operations Regulations,” taking precedence over individual services’ campaigns.⁸ This reflected the much greater importance accorded joint operations over single service operations.

For the PLA, “joint campaigns” are defined by four criteria:

⁷ Gao Hongchun, editor, *National Defense Knowledge*, National Defense Teaching Materials, Vol. III (Beijing, PRC: AMS Publishing, January 2003), pp. 127-130.

⁸ The PLA is comprised of the ground forces, navy, and air force as services (军种) and the Second Artillery as an independent branch (兵种). However, for the purposes this chapter, the use of the term “services” refers to all four elements.

- The campaign involves two or more services
- Each service contributes a campaign *juntuan* (战役军团)-level of force, i.e., a group army, a military region air force, a fleet, a Second Artillery base
- The campaign has a single, unified command structure
- The command structure develops a single, unified campaign plan, which all the participating forces are obliged to follow.⁹

Contemporary Chinese writings suggest that there are various ways of categorizing joint campaigns. One is by offensive versus defensive joint campaigns. Another is by the types of forces involved. Still another is by the type of operations envisaged, such as island blockade campaigns, frontier counter-attack campaigns, etc.¹⁰ They can also be categorized by scale, which are described as:

- Large-scale, or war zone, joint campaigns (大型（战区）联合战役). These may be comprised of one or more war zones, and would involve large numbers of campaign *juntuan* and other forces.¹¹ An island offensive campaign is likely to entail a large-scale, war zone joint campaign.¹²
- Mid-scale, or war zone direction, joint campaigns (中型（战区方向）联合战役). These will be focused on a particular operational direction (作战方向) of a war zone. These may be part of a large-scale (war zone) joint campaign, or they may be conducted independently. A frontier area counter-attack campaign is cited as an example of a mid-scale, war zone direction joint campaign.¹³
- Small-scale, or group army level, joint campaign (小型（集团军级）联合战役). These would be on a particular strategic or campaign direction, and might involve smaller forces drawn from the various services. The Yijiangshan campaign in 1954-1955, which involved smaller forces than *juntuan*-level, is considered a small-scale, group army-level joint campaign.¹⁴

⁹ Gao Yubiao, Chief Editor, *Joint Campaign Course Materials* (Beijing, PRC: Academy of Military Science Publishing House, 2001), p. 27, and Wang Houqing and Zhang Xingye, Chief Editors, *The Science of Campaigns* (Beijing, PRC: National Defense University Publishing House, 2000), pp. 385-386.

¹⁰ Wang Houqing and Zhang Xingye, *The Science of Campaigns* (Beijing, PRC: National Defense University Press, 2000), pp. 387-389, and Gao Yubiao, Chief Editor, *Joint Campaign Course Materials* (Beijing, PRC: Academy of Military Science Publishing House, 2001), pp. 28-29.

¹¹ “战区” can be translated as “war zone” or as “theater.”

¹² Gao Yubiao, Chief Editor, *Joint Campaign Course Materials* (Beijing, PRC: Academy of Military Science Publishing House, 2001), p. 102.

¹³ *Ibid.*, p. 103.

¹⁴ *Ibid.*, p. 29.

Military Regions and War Zones

A military region (军区) is a first-level military organization (军队一级组织), generally established on a nation's own territory, delineating a strategic area. Currently, China has seven military regions (MRs), which are directly subordinated to the Central Military Commission. Each MR has its own leadership and command organs (领导指挥机关), subordinating a number of combat and support units. It will also have subordinate provincial military districts, military academies, and other military administrative entities. The MR's leadership will be responsible for military affairs, military political work, military logistics and support work, and equipment support work within the MR. It will also be responsible for leading military-civilian relations, mobilization work, People's Air Defense work, and battlefield construction.

A war zone (战区) is an operational area, established either prior to a conflict or after its onset, and determined by national strategic intentions and military, political, economic, and geographic considerations, and which establishes boundaries for strategic planning, and within which one undertakes strategic missions (战略任务). It is also referred to as a strategic region (战略区), and is sometimes translated as "theater."¹⁵

In essence, military regions appear to be peacetime administrative areas (e.g., provincial and autonomous region boundaries), responsible for the training of forces assigned to it, as well as a variety of supporting functions such as mobilization preparation, military-civilian relations, etc. War zones, on the other hand, appear to be more ad hoc, established in time of war or possibly crisis, and reflecting expected wartime conditions. War zones draw upon MRs' resources (e.g., the forces within them, the command structures, and local, civilian assets that might be mobilized), but need not have the same boundaries as an MR. Moreover, a war zone will likely encompass extended air and seaspace beyond the peacetime boundaries of the People's Republic of China, whereas MRs seem to be limited by peacetime boundaries.

A headquarters structure will be established to direct operations within a war zone. That entity may be based upon the MR's headquarters, but need not be.

Directing any joint campaign will be a unified command structure. In 1999, and again in 2006, *The Science of Campaigns* distinguishes between joint campaigns (联合战役) and service specific campaigns. For service-specific campaigns, such as mobile land campaigns, naval blockade campaigns, and air defense campaigns, the command structure can be based upon the existing service headquarters. But for joint campaigns, such as landing and anti-landing campaigns, it is necessary to have a truly joint command system, (联合指挥体制) to formulate and implement the unified campaign plan, because no individual service takes precedence. Such systems will usually have a joint campaign command headquarters (JCCH/联合战役指挥部) as the top tier of the overall joint campaign command system. To this end, PLA writings suggest that these joint campaign command systems will vary in size, corresponding to the expected scale of the joint campaign.¹⁶

¹⁵ Comprehensive Dictionary Editorial Committee, *Comprehensive Dictionary, Military Volume* (Shanghai, PRC: Shanghai Dictionary Publishing House, 2003), p. 67.

¹⁶ Gao Yubiao, Chief Editor, *Joint Campaign Course Materials* (Beijing, PRC: Academy of Military Science Publishing House, 2001), p. 29.

The largest joint campaign command structure, consistent with a large-scale, or war zone joint campaign, will be comprised of three tiers. At the top will be the JCCH. In some cases of such large-scale joint campaign headquarters, it may be manned by personnel drawn from the Supreme Command (统帅部), i.e., from the General Departments themselves, primarily the General Staff Department, as well as the service headquarters, i.e., PLA Navy, PLA Air Force, and Second Artillery headquarters.¹⁷ This form would appear to be associated with situations involving more than one war zone.¹⁸

Alternatively, a three tier, large-scale JCCH may start with personnel drawn from the constituent MR headquarters, including the MR's Operations Department staff, MR's constituent service component headquarters staff, as well as other MR organs (e.g., political work, logistics work). They may then be augmented by personnel dispatched from the Supreme Command (both General Department and service headquarters personnel. This form would seem to arise if only one war zone is involved.¹⁹

Beneath the JCCH, the second command tier in a large-scale joint campaign command system may be either a war zone direction (战区方向) command structure (指挥机构), or a command structure drawn from a service's staff.²⁰ Finally, the lowest tier of the three-tier joint command structure will be the campaign-level *juntuan* command section. This will be drawn from the command staff of the most involved service.

A two-tier campaign command structure would be created for a war zone direction joint campaign (战区方向联合战役) will typically be led by a two-tier campaign command structure. The top JCCH tier is typically comprised of staff drawn from the war zone command staff, and participating services' command staffs. If necessary, this structure can directly command the services' *juntuan*. The second tier is the campaign-level *juntuan* command section, responsible for developing their respective service forces' plans, while also helping implement the overall joint campaign plan.

A group army-scale joint campaign (集团军级联合战役) will have a single-tier command structure. This will often be comprised primarily of the staff of the service that is providing the bulk of the forces for the campaign, supplemented by relevant personnel drawn from other participating services. Such a campaign would be a very small scale joint campaign.

Joint Campaign Command Headquarters

In each type of joint campaign, the JCCH, constituting the top tier in the two- and three-tier campaign command structures, is responsible for mission planning, organization, and direction

¹⁷ 统帅部 is usually translated as "Supreme Command," and refers to the highest leadership and command structure of the nation's armed forces in wartime, responsible for planning and directing the overall war effort, and effecting strategic command. 2011 *Junyu*, p. 172.

¹⁸ Yuan Wenxian, Chief Editor, *Discussions on Headquarters Work* (Beijing, PRC: National Defense University Press, 2001), p. 377.

¹⁹ *Ibid.*, p. 377.

²⁰ It should be noted that, according to Chinese writings, the second tier, if a war zone direction command section, is *not* simply a war zone direction joint campaign command headquarters.

for the overall force. These tasks include setting campaign objectives in light of overall goals of the conflict, determining campaign methods, and establishing key tasks and missions for subordinate forces. It also includes creating the coordination plans, determining phasing, ensuring logistical and safeguarding support, and the various other tasks required to maximize the effectiveness of all the participating forces.

To support the joint campaign commander, the JCCH is divided into several centers. In volumes published prior to 2005, these typically include:

- Command center (指挥中心). This is the core of the JCCH, and includes the chief of staff, the political officer, and other key senior leaders. It is responsible for establishing the campaign determination (战役决心), planning and implementing the campaign's activities, and exercising command over all campaign activities.
- Intelligence center (情报中心). The intelligence center oversees reconnaissance (侦察) and intelligence (情报) activities undertaken in the course of the joint campaign, as well as countering enemy activities in these areas. This center's responsibilities include organizing and managing associated networks and systems, issuing taskings for assets, and assessing the resulting collected information. Furthermore, the intelligence center is expected to provide intelligence assessments and updates for the joint campaign commander and his staff, as well as other centers (e.g., the air defense operations center).
- Communications center (通信中心). The communications center manages information flows within the joint campaign area, linking commanders and the command center to subordinate forces.
- Air defense operations center (防空作战中心). The air defense operations center plans and organizes air defense combat activities within the joint campaign area, drawing upon PLA Air Force, ground force, and local air defense assets.²¹ Although not stated, PLA Navy air defense assets are most likely included.

Some descriptions also included an electronic warfare center (电子对抗中心) and a special operations center (特种作战中心) as part of the JCCH.²²

It should be noted that, while the four departments are a key part of peacetime organization of the MR headquarters, Chinese writings indicate that wartime JCCHs must make adjustments to their organization, and should not simply adhere to the peacetime organization, specifically with regards to political work, logistics and safeguarding work, and equipment (armaments) work.²³ This would almost seem to imply that war zones have a primarily operational function,

²¹ Zhang Peigao, Chief Editor, *Joint Campaign Command Course Materials* (Beijing, PRC: Academy of Military Science Publishing House, 2001), pp. 36-43.

²² Wang Guangzhou, Chief Editor *Science of Operations Command* (Beijing, PRC: Liberation Army Press, 2000), p. 136, Yuan Wenxian, Chief Editor, *Discussions on Headquarters Work* (Beijing, PRC: National Defense University Press, 2001), p. 384.

²³ Zhang Peigao, Chief Editor, *Joint Campaign Command Course Materials* (Beijing, PRC: Academy of Military Science Publishing House, 2001), pp.48-49

whereas military regions have more of a training and administrative function, as well as a role in mobilizing available assets and resources in transitioning from peacetime to wartime.²⁴

Evolving PLA Views of Future Wars

Even as the PLA was promulgating its news regulations, it was also recognizing that warfare was still evolving. PLA analysts spent significant time examining NATO operations in the Balkans, as well as the war in Afghanistan, and the coalition war against Iraq in 2003. It is not clear whether these analyses have led to changes in the “New Generation Operations Regulations,” but they appear to have affected other aspects of PLA thinking about future wars.

For PLA analyses, the hallmark of the intervening two decades since the first Gulf War has been the growth of information and associated technologies. The current Information Era, in contrast with the Industrial Era of the 20th Century, has therefore seen not only industrial and social reorganizations to accommodate the growing importance of information, but also affected the conduct of warfare. Just as economic strength is now heavily influenced by the ability to acquire, manipulate, and exploit information, the transformation in global military affairs (世界军事改革) is seen as a consequence of the introduction of information technology into various areas of military operations. In short, the key high technologies in both war and peace are those relating to information.

This shift is prominently noted in the evolving PLA descriptions of the nature of future wars. The 1990s formulation of preparing to fight “local wars under modern, high-technology conditions” was replaced with concern over fighting and winning “local wars under informationized conditions.” This change was incorporated in the 2004 Chinese white paper on national defense, but was apparently already being discussed in 1999 PLA professional military literature, and was “officially incorporated into the lexicon of the ‘Military Strategic Guidelines for the New Period’” in 2002.²⁵ Subsequently, PLA writings also evolved into fighting and being able to win such wars, to the current formulation of “fighting and winning ‘local wars under informationized conditions.’”

According to the PLA, “local wars under informationized conditions” are comparable to “mechanized warfare,” as a description of the nature of current wars.²⁶ Informationized conditions are marked, in part, by the introduction of information technology into various weapons, making them ever more precise and lethal. The networking of weapons with each other, and with sensors, allows for higher operational tempos, as night and weather conditions no longer constrain military forces as much as in the past. But informationized warfare goes beyond the incorporation of information technology into individual weapons, or even into broader systems.

²⁴ Yuan Wenxian, Chief Editor, *Discussions on Headquarters Work* (Beijing, PRC: National Defense University Press, 2001), pp. 232-236.

²⁵ David Finkelstein, “China’s National Military Strategy: An Overview of the ‘Military Strategic Guidelines,’” in *Right-Sizing the People’s Liberation Army: Exploring the Contours of China’s Military*, ed. by Roy Kamphausen and Andrew Scobell (Carlisle, PA: Strategic Studies Institute, 2007), p. 96.

²⁶ AMS Operations Theory and Regulations Research Department and Informationized Operations Theory Research Office, *Study Guide for Informationized Operations Theory—400 Questions on Informationized Operations* (Beijing, PRC: Academy of Military Sciences Press, 2005), p. 72.

As one PLA volume states, “informationized operations (信息化作战)” may be defined as:

Systems versus systems conflict activities (体系对抗行动) that entail a heavy reliance by both sides on information, information systems, informationized weapons and equipment, with a focus on information flow, involving operations on land, sea, air, in space, within the electromagnetic spectrum, information (信息), and cognitive (认知) domains.²⁷

As this definition suggests, with the steady proliferation of information technologies, conflicts are no longer determined by platform-versus-platform performance, not even system against system. Rather, conflicts are now clashes between systems-of-systems (体系). Systems-of-systems are created through the integration of information flows that themselves are generated by the incorporation of information technology into every facet of military activities, e.g., logistics, intelligence collection and exploitation, transportation, etc.²⁸

Key to the struggle between systems-of-systems is the ability to affect that information flow, i.e., the ability to secure information dominance (制信息权). This entails “an emphasis on the use of command decision-making to form and shape the entire whole.”²⁹ Informationized warfare correspondingly emphasizes the incorporation of advanced information technology into command and control capacity, as an integral part of generating additional combat power.

These systems-of-systems, moreover, apply not only to combat forces, but also the linkage and melding of combat and combat support and combat service support functions. The PLA sees a blurring in the distinction between forward and rear areas, as well as the lines separating offensive and defensive operations, or the applicability of positional, mobile, and guerrilla warfare. In short, informationized warfare appears to have accelerated an evolution of joint operations, from coordinated joint operations to fully integrated joint operations (一体化联合作战).³⁰

Fully integrated joint operations involve highly melded joint units (高度融合的联合部队) drawn from the various services and branches, with a seamless networked information system (无缝链接的网络化信息系统), capable of integrated operations (整体作战) across all five battlespaces of land, sea, air, space, and the electromagnetic spectrum.³¹ Such operations are marked by networked information system; highly melded joint units; integrated, multi-aspect

²⁷ AMS Operations Theory and Regulations Research Department and Informationized Operations Theory Research Office, *Study Guide for Informationized Operations Theory—400 Questions on Informationized Operations* (Beijing, PRC: Academy of Military Sciences Press, 2005), p. 72

²⁸ Bai Bangxi, Jiang Lijun, “Systems of Systems Conflict Is Not the Same as Systems Conflict,” *National Defense Newspaper* (January 10, 2008).

²⁹ Ibid.

³⁰ To distinguish between the various Chinese forms of “integrated” such as “zhengti” and “yitihua,” the phrase “fully integrated” is used in reference to “yitihua.”

³¹ AMS Operations Theory and Regulations Research Department and Informationized Operations Theory Research Office, *Study Guide for Informationized Operations Theory—400 Questions on Informationized Operations* (Beijing, PRC: Academy of Military Sciences Press, 2005), p. 380.

battlespaces (多维一体的战场空间); and integrated joint activities in operational maneuvers (整体联动的作战行动).

Fully integrated joint operations are the expression of the characteristics associated with informationalized warfare; they are the basic operational form (作战形式) of conflict in the Information Age.³² According to one PLA analysis, the further integration (一体化) of PLA joint operations has involved four aspects:³³

- The creation of a “*fully integrated operational theory* (作战理论一体化),” in which a common operational theory was created to allow different services to share common operational concepts. Without a unified, or consolidated set of regulations (统一的条令), then it would not be possible to have different services’ formations act in a unified, or consolidated, manner (统一行动).
- An integrated operational theory, in turn, required “*fully integrated command* (指挥一体化)” in order to be implemented. This required establishing an appropriate command system (指挥体制) for the various forces, capable of executing planning across service lines.
- The integrated command system can only manage joint operations through the creation of a “*further integrated C3I system*.” This C3I system (which is probably now expanded to C4I) is necessary, so that all participating forces can be linked together.
- The integrated command structure and C3I system will facilitate the “*further integration of knowledge* (知识一体化),” so that there is common situational awareness of the situation, but also mutual understanding of each service’s perspectives and approaches to warfare.

Modifying the Campaign Basic Guiding Concept

The emphasis on informationization, as well as integrated operations, is reflected in a modification of the campaign basic guiding concept. In the 2000 edition of *The Science of Campaigns* the contemporary campaign basic guiding concept is characterized as “integrated operations, key point strikes (整体作战, 重点打击).” In the 2006 edition, however, this had been modified to “integrated operations, constrain the enemy with precision strikes (整体作战, 精打制敌).”

“Integrated Operations”

In this new formulation, “integrated operations” builds upon the previous concept of integrated forces, domains, and activities, incorporating information technology to various aspects to improve integration, while also adding additional aspects. However, the various elements are now to be “fully integrated” (一体化).

³² Kou Shiqiang, “A Clarification of Integrated Joint Operations,” *People’s Liberation Army Daily* (August 11, 2004). www.china.com.cn/military/zhuanti/sjxjsbg/txt/2004-08/11/content_5632264.htm

³³ Cui Shizeng, Wang Junyi, “Advancing Military Transformation with Chinese Characteristics, Strengthening ‘Integrated-Style Joint Operations,’” *People’s Liberation Army Daily* (July 7, 2004)

From “integrating forces,” it is now said that *all participating forces should be unified*. In this new formulation, joint operations are still emphasized, incorporating land, sea, air, and Second Artillery forces, as well as the other elements of the Chinese armed forces (i.e., PAP, militia). But the new approach must also integrate both “hard kill and “soft kill” capabilities, and link firepower attacks to special operations missions as well as psychological strikes.³⁴ Moreover, integrated operations must also concentrate battlefield sensors, information transmission systems, as well as rapid mobility and precision strike capacity, with the objective of creating a system that generates fully integrated operational strength (一体化的作战力量).³⁵

From “integrating domains or battlespaces,” there is now the view that the *various aspects of the battlespace must be fully integrated*. In this new formulation, the land, sea, air, electromagnetic, and outer space battlefields are now joined by the psychological battlefield. Moreover, specific attention is drawn to the importance of the space and psychological battlefields. The former is described as the new strategic high ground (战略制高点). The latter reflects the human factor in warfare and requires careful planning so as to attrit the enemy’s will.³⁶

From “integrating campaign phases and activities,” there is now the view that commanders must strive to *further integrate the operational activities and styles*. Through informationization, operational activities and styles have undergone a profound transformation, with wholly new styles and concepts of operations now possible. At the same time, only through a comprehensive application of all the available styles and activities is victory possible; no single approach or activity can hope to defeat an opponent. Commanders are therefore admonished to combine all the various types of wartime operations, including information warfare, firepower warfare, mobile warfare, positional warfare, psychological warfare, special operations, network warfare in future operations. They must also combine conventional and irregular warfare, offense and defense, hard- and soft-kill, and physical strikes with psychological attacks. The command and control systems play an essential role in the process of unifying operational activities and styles.

In addition to expanding the previous concepts of integrating forces, battlespaces, and campaign activities, the revisions to the campaign basic guiding concept also calls for “*further integrating the various aspects of safeguarding*.” Safeguarding, in the Chinese conception, is linked to the provision of protection or sustainment in support of operations. It therefore contains aspects of logistics, but also refers to maintaining security and secrecy.

In the revised 2006 edition of *The Science of Campaigns*, it is noted that there are many aspects of safeguarding, including the safeguarding of forces, capabilities, and types of capabilities (e.g., operational safeguarding, logistics safeguarding, and equipment safeguarding).³⁷ In order to support integrated operations, it is therefore necessary to have a consolidated command and support structure (指挥保障体制), to oversee the overall support mission throughout the course of the campaign, across all battlespaces. Only through such an integrated overall support system (大系统整体保障) can there be a fully integrated civil-military effort (军民一体), a fully

³⁴ Zhang Yuliang, Chief Editor, *The Science of Campaigns* (Beijing, PRC: National Defense University Publishing House, 2006), p. 87.

³⁵ Ibid.

³⁶ Ibid. pp. 87-88.

³⁷ Ibid., pp. 88-89.

integrated multi-service effort (诸军兵种一体) , and a fully integrated logistics and equipment preparation effort (后勤与装备一体).³⁸

Finally, emphasis is placed upon preventing the enemy from creating an integrated structure (整体结构) for their operational systems (作战体系). Commanders are advised to create disruptions in the enemy's systems architecture, so as to weaken their ability to conduct integrated operations (整体作战能力). There must be a focused effort on identifying the enemy's key nodes and attacking them, thereby generating a cascading set of failures that will paralyze their entire system. Examples include attacking the enemy's command and control systems, information systems, weapons systems, and vital support systems.³⁹

“Constrain the Enemy with Precision Strikes”⁴⁰

The other half of the revised campaign basic guiding concept calls for constraining or limiting the enemy through precision attacks (精打制敌). This is not solely focused on the application of precision firepower, but instead refers to “precision operations (精确作战).” Such operations, it is noted, involve precision selection of operational targets, of types of forces, of tactics and techniques, and precise control of the intensity and progress of the conflict. The key to successful precision operations is a suitable joint campaign command structure, in order to effect that precision application of forces and capabilities.⁴¹

The “*precise selection of targets* (精确选择打击目标)” involves applying available forces against “key enemy targets (敌要害目标).” These are defined as those targets whose destruction or damage will influence the campaign, and may even have strategic impact. The focus should be on disrupting or paralyzing the enemy's combat systems structure (作战体系结构). Therefore, targets should be selected whose destruction will not only disrupt operations, but also shake enemy morale. Consequently, the campaign command should strive to destroy or disrupt not only political and economic targets, but also vital military facilities, and those facilities that help support operations systems (敌作战体制起维系作用).

Precision selection of targets, however, involves not only identifying which enemy systems are most vulnerable, but also “weaponeering.” That is, in the PLA view, one must also take into account the capabilities at one's own disposal, ensuring that every target is not only serviced, but serviced efficiently. This is especially important for those targets that will be struck at the onset of the campaign. As the campaign progresses, the campaign command must be prepared to adjust their targeting, maintaining a flexible, responsive approach to situational changes while remaining focused on the ultimate campaign objectives.

Not only is the campaign command expected to precisely apply weapons, but also to “*precisely apply forces against key points* (精确重点用兵).” The intent is to forge an overwhelming advantage against key enemy points, but through precise application of high quality forces,

³⁸ Ibid., p. 89.

³⁹ Ibid.

⁴⁰ The following section is drawn mainly from Zhang Yuliang, Chief Editor, *The Science of Campaigns* (Beijing, PRC: National Defense University Publishing House, 2006), pp. 90-93.

⁴¹ Ibid, pp. 89-90.

rather than simply massing numbers (although quantity remains part of the calculus). Indeed, *The Science of Campaigns* notes that the proper perspective is to emphasize quality when calculating the amount of force required.⁴² These same calculations should also take into account assessments of the relative virtues and advantages of various types of forces against each target set, in order to create mutually reinforcing effects. Thus, in some instances, the campaign command should rely upon “soft-kill” capabilities, e.g., against the enemy’s information and command systems. Soft-kill refers to the use of non-kinetic attack methods, such as computer network attacks, electronic warfare, jamming of communications links, and other such means. By contrast, facilities should be targeted with “hard-kill” capabilities, referring to more destructive, kinetic methods, such as cruise missiles, anti-radiation missiles, laser-guided bombs, etc.⁴³

Commanders are also advised to concentrate their best forces, to maximize effect. In this manner, even though a force may be generally qualitatively inferior to an opponent, it may nonetheless be able to forge local superiority in advanced weapons and elite troops. For this reason, one’s best forces should be applied specifically along the main direction (主要方向), at key areas (重点地区), and at key times (关键时节), in order to create this local superiority at decisive times and places.⁴⁴

In precisely applying weapons and troops, commanders must also “*precisely apply tactics and techniques* (精确运用各种作战方法和手段).” Of particular importance is precise application of tactics and techniques that will facilitate securing the “three dominances (or superiorities) (三权),” that is information dominance, air dominance, and maritime dominance. Control of these domains is seen as essential prerequisites for winning any campaign.

Precise application of tactics and techniques requires the campaign command to be familiar with one’s own forces and enemy forces, with the ability to fight the close-in as well as distant battles, to apply both hard- and soft-kill techniques. To this end, like the precise application of weapons and troops, the campaign command must be able to flexibly and innovatively adjust one’s actions, engaging in both simultaneous and sequential operations while responding to contingencies as they arise.

Finally, constraining the enemy through precision strikes requires the “*precise control of operations* (精确控制作战进程).” This refers to precise planning of each phase of an operation, including subordinate missions and associated tactics, as well as precisely managing the transition from phase to phase. The campaign command must, based on both the overall operational intent and the actual battlefield situation, create phases that mutually support each other and all contribute towards achieving the ultimate, overall campaign goal. Thus, for each phase, they must determine the proper operational style (作战样式) and when to implement them. This must be done for the forces of each participating service and branch, with cross-coordination of all these activities. In addition, the campaign command must also effect a smooth

⁴² Ibid, p. 91.

⁴³ Yuan Wenxian, *Joint Campaign Information Operations Teaching Materials* (Beijing, PRC: National Defense University Press, 2009), pp. 19-20.

⁴⁴ Zhang Yuliang, Chief Editor, *The Science of Campaigns* (Beijing, PRC: National Defense University Publishing House, 2006), p. 91

transition from phase to phase, adjusting timing to suit circumstances. Finally, as the campaign progresses, “the intensity and phase of the operation may have to change, which will affect the progress of the operation and the result.”⁴⁵

As with the precision application of weapons, *The Science of Campaigns* emphasizes the importance of the initial battle of any campaign in precisely planning operations and tactics, as the outcome of that first battle will greatly affect the course of the overall campaign. But the Chinese authors also note the importance of focusing on campaign goals, and note that this, rather than whether battles are being won, should be the essential metric of success. The command structure must maintain emphasis on whether the entire operations’ goals can be realized or not, and maintain tight control over the course of the operation so as to keep those goals in mind. In this regard, it would seem that the Chinese concern is that one might win battles that are irrelevant, or at best tangential, to achieving campaign goals.

Command of Fully Integrated Joint Operations

With these campaign basic guiding principles in mind, the PLA emphasizes the importance of campaign command (战役指挥). The ability to command effectively is an essential part of combat power generation, and is a key role of the campaign commander and his staff.⁴⁶ The concept of campaign command includes both the campaign tasks (指挥任务), and the command structure (指挥机构) which will try to implement campaign command tasks. The command headquarters includes the campaign commander (战役指挥员) and the command organs (指挥机关). These organs seem to replicate the four General Departments (i.e., the Political, Logistics, and Armaments or Equipment Departments), as well as certain key functions (e.g., air defense, intelligence, communications).⁴⁷

The basic mission of the campaign command is to implement command of campaign forces, consistent with higher level intentions, through the organization and planning of the campaign, flexible application of campaign strength and campaign tactics and methods. Ideally, campaign command will be able to create unity of effort and intent. For informationalized operations, this means the effective collection, transmission, management, application, and sharing of information among various participating forces.⁴⁸

Command Tasks for Integrated Joint Operations⁴⁹

The joint operations command headquarters, including the commander, the chief of staff (e.g., the director of the Headquarters Department), and the joint operations command structure will all be engaged in informationized operations, because command is seen, at base, as an information

⁴⁵ Ibid, p. 92.

⁴⁶ He Qingcheng, “Combat Command Capability: The Core of Military Capability’s ‘Core,’” *Liberation Army Daily* (September 10, 2009)

⁴⁷ Yuan Wenxian, Chief Editor, *Joint Operations Command Organ Work Teaching Materials* (Beijing, PRC: National Defense University Publishing House, 2008), p. 42.

⁴⁸ HE Qingcheng, “Combat Command Capability: The Core of Military Capability’s ‘Core,’” *Liberation Army Daily* (September 10, 2009)

⁴⁹ Drawn from Yuan Wenxian, Chief Editor, *Joint Operations Command Organ Work Teaching Materials* (Beijing, PRC: National Defense University Publishing House, 2008), pp. 11-13, 16-20.

activity.⁵⁰ Based on the reviewed literature, there appears to be broad agreement on what tasks will confront joint operations command structures as they implement integrated joint operations. These include:

- *Grasping the situation* (掌握情况). This is the first, most basic task for the joint operation command organs (联合作战指挥机关), and supports all the other tasks of the headquarters. The requirement for grasping the situation is seen as much greater for joint operations among services than for combined operations within a single service, as it affects all aspects of planning and all subsequent command activities.
 - This entails the collection, management, processing, and distribution of information. This applies not only to the gathering of current intelligence, however, but also collection of background material and undertaking longer term assessments. The ability to gather sufficient information to fully understand a situation is a “force multiplier” for combat power, and a key means of seizing and retaining battlefield initiative.⁵¹
 - To this end, it is the task of the joint operations command structure to oversee reconnaissance and surveillance activities, as well as analysis of the collected information, exploiting a wide range of sources for comprehensive coverage. The command structure must therefore incorporate not only up-to-date battlefield information in its assessments, but also relevant political, economic, diplomatic, cultural, and social conditions.
 - It is notable that this task is not included in the brief list of command activities (指挥活动) associated with joint campaigns in the new edition of the *Science of Campaigns*, although aspects of the following three are.⁵²
- *Assist in decision-making* (辅助决策). As military operations have become ever more complex, so has command and control. As Chinese analysts have observed, military command is no longer the activity of a single individual, nor of several staffers, assisting the commander. Instead, it is the activities of staff personnel, engaging in specified activities in prescribed manners, creating a command structure.⁵³ These personnel supplement and assist the commander in decision-making.
 - In this regard, the central role of the commander (指挥员) is to lay down accurate determinations (决心), based on decisions (决定) rooted in the operational goals and higher level directives. The commander also outlines how he expects that determination to be implemented, in broad terms.
 - The task of the command organs (指挥机关) is to then take those determinations, and incorporate their understanding of the overall situation, based on their earlier grasping. With that information in mind, they are expected to undertake comprehensive analysis and research, and from their assessments, provide the

⁵⁰ He Qingcheng, “Combat Command Capability: The Core of Military Capability’s ‘Core,’” *Liberation Army Daily* (September 10, 2009).

⁵¹ Yuan Wenxian, Chief Editor, in *Joint Operations Command Organ Work Teaching Materials* (Beijing, PRC: National Defense University Publishing House, 2008), pp. 16-17.

⁵² Zhang Yuliang, Chief Editor, *The Science of Campaigns* (Beijing, PRC: National Defense University Publishing House, 2006), pp. 283-284.

⁵³ Yuan Wenxian, Chief Editor, in *Joint Operations Command Organ Work Teaching Materials* (Beijing, PRC: National Defense University Publishing House, 2008), pp. 13-14.

commander with proposed approaches (方案). It should be noted that these approaches are, apparently, more akin to outlines, as they are distinct from actual operational plans and organization, which is a separate task.

- *Planning and organizing* (计划组织). Based on the commander's determinations, directives, and guidance, supplemented by their proposed approaches, the joint campaign command organs are expected to undertake planning and preparations of operational activities (作战行动), various support activities (保障行动), and command activities (指挥行动). As multiple services will be participating in any joint operations, one key task for the command organs is precise organizing and tight planning that exploits participating services' virtues, compensates for respective weaknesses, and generates maximum integrated strength.
 - To do this, the joint operations command offices must keep in mind not only the commander's intentions, but also the joint operation missions (联合作战任务), and allocated forces' capabilities. They must take into account not only combat missions, but also incorporate support work, political work, logistical work into their plans, deconflicting requirements and coordinating activities. Once the plans are created and approved, they must then oversee their implementation, inspect units to ensure compliance, and provide guidance where necessary, always ensuring that the plans and activities are consistent with higher level directives.⁵⁴ Thus, commanders provide the direction for joint operations command offices' activities; while the joint operations command offices are the foundation and support for realizing the commander's orders.
 - Planning and organizing applies not only to pre-war preparations, however, but also extends into the course of operations. When the battlefield situation changes, especially due to enemy actions, then the joint operations command offices must promptly propose adjustments to the commander's determinations, and adjust plans, transmit orders, and organize the redeployment of forces.⁵⁵
- *Controlling and coordinating* (控制协调). This task would seem to heavily overlap with the planning and organizing function noted previously. PLA writings suggest that controlling and coordinating mainly entails coordination of the various forces in response to battlefield situations. It may therefore refer to the implementation of the planning and organizing aspect, once the conflict has begun.
 - Given that conflicts under informationized conditions are much more complex, involving more participating services, larger physical scale, and more varied operational styles (作战协同), the coordination and control of participating forces requires much more active effort on the part of the joint campaign command structure. There are three possible approaches to coordination: planned coordination (计划协同), ad hoc coordination (临机协同), and entrusted or delegated coordination (委托协同).⁵⁶
 - Planned coordination is based upon previously established arrangements, specifying coordination missions and the sequencing of activities. Ad hoc coordination is undertaken in the midst of joint operations, in response to

⁵⁴ Ibid., p. 14.

⁵⁵ Ibid., p. 19.

⁵⁶ Ibid., pp. 141-142.

battlefield developments. It is seen as a supplement to planned coordination, but planned coordination is seen as the primary form.⁵⁷ Entrusted coordination involves delegating some aspect of coordination to a separate operational organization's command structure. It may be based on a particular combat style or activity, an operational direction or space, or a specific operational phase or time period. This is especially important for situations where communications are disrupted or broken.

- Coordination may be implemented based on electromagnetic spectrum, operational timing, physical space, or specific target. Electromagnetic coordination is a new type of coordination, involving the coordination of friendly electronic warfare activities with other friendly activities. Based on physical area of operations, timing of operations, or affected spectra, one may engage in electronic warfare (or suspend such operations) or other military activities.⁵⁸

It is interesting to note here that three of these tasks (grasping the situation; planning and organizing; controlling and coordinating) are largely unchanged from those outlined a decade ago.⁵⁹ However, these tasks are now specifically enumerated for the joint operations command offices, i.e., as a staff support function, rather than simply a command task. Similarly, recent writings specify the role of command offices as assisting in decision-making (辅助决策), where earlier PLA writings had simply stated that engaging in decision-making (运筹决策) was a core responsibility.⁶⁰

Campaign Command Structures

To fulfill the various tasks, campaigns operate under the direction of campaign command headquarters (战役指挥机构). As in the earlier edition of *The Science of Campaigns*, the new edition indicates that there are still three types of campaign command structures, which are based on the scale of the campaign. However, there are distinctions between the joint campaign command structure and the more generic campaign command structure.

For campaigns in general, there are the war zone campaign command structure; the group of group armies campaign command structure or the war zone direction campaign command structure; and the group army [level] command structure. For the joint campaign, there are the three tier command system, the two tier command system, and the one tier command system.

Generic Campaign Command Headquarters

For campaigns in general, the largest scale campaign is commanded by a *war zone campaign command structure* (战区战役指挥机构), which is comprised of the war zone's land, sea, and air commanders, along with command personnel drawn from operational and tactical missile units, as well as associated staff officers and structures. It is noted that, under modern conditions,

⁵⁷ Ibid., pp. 142.

⁵⁸ Ibid., p. 143.

⁵⁹ Zhang Peigao, Chief Editor, *Joint Campaign Command Course Materials* (Beijing, PRC: Academy of Military Science Publishing House, 2001), pp. 71-161.

⁶⁰ Ibid., pp. 93-112, and Yuan Wenxian, Chief Editor, *Joint Operations Command Organ Work Teaching Materials* (Beijing, PRC: National Defense University Publishing House, 2008), pp. 16-20, 84-107.

these frequently are joint campaign command headquarters, but the implication is that this may not always be the case.⁶¹

The officers leading the war zone campaign command headquarters may be drawn from the war zone's commanders, but may instead be drawn from the Supreme Command (统帅部); in any case, the Supreme Command will express guidance, while the main task of the war zone campaign command headquarters will be conducting war zone campaign operations.

The next tier beneath the war zone campaign command headquarters will be either a group of group army [level] campaign command structure (集团军群战役指挥机构) or a war zone direction command headquarters (战区方向指挥机构). Additional group army-level forces, as well as special operations groups command structure (特种作战集团指挥机构) may also be assigned to a war zone campaign command headquarters. Subordinate to either of these headquarters would be group army (corps) campaign command structure (集团军[军]战役指挥机构).

Mid-scale campaigns will be led by either the group of group army [level] campaign command headquarters or a war zone direction command headquarters. The forces associated with this scale campaign will either be formed from a group of group armies along a strategic direction, or be implemented by several campaign directions. Command staffs will be drawn either from war zone commanders and their staffs, or from a single service, with the war zone command providing representatives, presumably to oversee operations. It is noted that mid-scale campaigns will be either subordinate to the war zone command headquarters, or else to the senior national leadership.

Small scale independent campaigns, or ancillary campaigns in support of large and mid-scale campaigns, will be led by group army-level campaign command structure (集团军战役指挥机构). The command structure may be comprised from elements of the participating forces' command staffs, or may be composed of officers dispatched from higher levels (presumably the group of group army campaign command headquarters or war zone direction command headquarters), or may be built from a single participating service's command structure.

Joint Campaign Command Structure

For joint campaigns, the joint operations command structure (联合作战指挥机构) is comprised of the joint operations commander (联合作战指挥员) and the joint operations command structure (联合作战指挥机构).⁶² There are three types of campaign command headquarters, which appear to be at least partially derived from those of the more generic campaign command headquarters described above.⁶³

⁶¹ Zhang Yuliang, Chief Editor, *The Science of Campaigns* (Beijing, PRC: National Defense University Publishing House, 2006), p. 127.

⁶² Yuan Wenxian, Chief Editor, "Foreword," in *Joint Operations Command Organ Work Teaching Materials* (Beijing, PRC: National Defense University Publishing House, 2008), p. 1.

⁶³ Zhang Yuliang, Chief Editor, *The Science of Campaigns* (Beijing, PRC: National Defense University Publishing House, 2006), pp. 281-282.

For large-scale joint campaigns, command will be exercised from the *three-tier command system* (三级指挥体制). These apparently come in two forms:

- Joint campaign command headquarters (联合战役指挥部)—service-based campaign command headquarters (军种战役指挥部)—campaign *juntuan* command headquarters (战役军团指挥部)
- Multiple-war zone joint campaign command headquarters (多战区联合战役指挥部)—war zone direction command headquarters (战区方向指挥部)—campaign *juntuan* command headquarters (战役军团指挥部)

In the first version, the joint campaign command section will represent the highest level of command authority, operating under guidance from the Supreme Command but responsible for planning and implementing the campaign. In the second version, the joint campaign command headquarters is typically made up of command personnel from both the involved war zones and participating services, supplemented by relevant personnel and organizations as may be necessary. It may, if appropriate, also incorporate officers dispatched from the Supreme Command (统帅部). Which three-tier command system is employed will likely depend on whether the projected campaign will involve one or multiple war zones.

In both cases, the second layer will be directed by the top layer, and will, in turn, command a lower layer of campaign *juntuan* command sections. This lowest layer will be drawn from the service forces' command staffs, and will be responsible for organizing and implementing the campaigns. It is noted that in a very large scale joint campaign, there may be many different service campaign *juntuan* command sections.⁶⁴

For middle-scale joint campaigns, command will be exercised from a *two-tier command system* (二级指挥体制), comprised of: the joint campaign command organs—service campaign *juntuan* command organs. The joint campaign command organs will be drawn from war zone and service command personnel and their command offices. It may directly command the service campaign forces, or it may rely upon the service campaign *juntuan* command organs, which are expected to obey the joint campaign command organs' directives.

Finally, for small-scale joint campaigns, the group army-level joint campaign, command will be exercised through a single layer command system—a single layer joint campaign command headquarters (单级联合战役指挥部). This is frequently built around a particular service's campaign group army command headquarters, absorbing additional command elements and staffs drawn from other participating services. This appears to be identical to the smallest scale joint campaign command headquarters set forth in the earlier edition of *The Science of Campaigns*.

It should be noted that some other Chinese writings would seem to differ from *The Science of Campaigns* on the scales of command headquarters for joint operations, although they agree that the choice of specific command structure should be based on operational missions (作战任务),

⁶⁴ Ibid, p. 282.

operational scale (作战规模), operational timing and area (作战时间和地域). One volume suggests that there may be *four* joint operational command headquarters: general joint operations command structure (总部联合作战指挥机构), war zone joint operations command structure (战区联合作战指挥机构), war zone direction joint operations command structure (战区方向联合作战指挥机构) and joint unit command structure (联合部队指挥机构).⁶⁵

In general, however, while there may be different scales of joint campaign command structures, none seem to entail simply adding an additional command tier to a smaller-scale joint campaign. This is distinctly different from the more generic campaign command headquarters, where the command headquarters for large-scale campaigns seems to append an additional tier of command atop that for a mid-scale campaign.

Joint Campaign Command Headquarters

There seem to be a number of different views of how joint campaign command headquarters can be organized for “local wars under informationized conditions.” The composition of the joint operations command headquarters, i.e., what specific departments are necessary for a joint campaign command headquarters to conduct integrated operations, varies in Chinese writings. This may reflect an ongoing evolution in PLA thinking. Alternatively, given the limitations of accessible Chinese writings, it may be that this situation was true but has since been resolved.

This is complicated by comments suggesting that the PLA may not have established permanent joint campaign command headquarters. One publication from 2006 observes that “our military currently has not built day-to-day joint operations command structures (我军目前还没有建立常设的联合作战指挥机构).”⁶⁶ Another PLA publication notes that

Our military’s joint operations command systems have not yet been fully completed, and joint operations command offices’ organization and missions still lack formal authority as laid out in regulations (我军联合作战指挥体制还没有完全建立健全，联合作战指挥机构的职能和任务还缺乏权威的法规依据).⁶⁷

As a result, available PLA writings may reflect different, possibly competing, ideas for how the joint campaign command headquarters should be organized, rather than describing how they are or will be organized.

One possible organization proposed in the 2006 edition of *The Science of Campaigns* is similar to that laid out in the 2000 edition. It is comprised of four command centers:

- Operations center (作战中心). This will contain the Headquarters Department and senior leaders (司令部首长), and the command staff from relevant operations departments (作战部门). This center would organize and plan the joint campaign, help coordinate commanders’ decision-making, engage in command and control.

⁶⁵ Dang p. 15.

⁶⁶ Ibid., p. 15.

⁶⁷ Yuan Wenxian, “Foreword,” in *Joint Operations Command Organ Work Teaching Materials* (Beijing, PRC: National Defense University Publishing House, 2008), p. 1

- Intelligence center (情报中心). This would contain the Headquarters Department and senior leaders and intelligence department personnel.
- Communications center (通信中心).
- Support center (保障中心). This would be organized from command and support personnel, and would undertake all operations command support missions (作战指挥的保障任务).

This could then be supplemented as necessary, such as with a comprehensive firepower coordination center (综合火力协调中心) or an information operations center (信息作战中心), depending on the requirements of the campaign.⁶⁸

A variation on this structure would have six centers, including a command and control center, intelligence center, communications center, an information operations center, as well as an air defense center (防空中心) and a special operations center (特种作战中心). The special operations center would provide a single planning center for special operations, choosing specific targets and coordinating special operations.

More recent writings suggest a somewhat different structure. One volume that discusses joint operations command organ work (联合作战指挥机关工作) suggests that the joint operations basic command post (联合作战基本指挥所) should be comprised of a command and control center, with intelligence, communications, military mobilization, political work, logistics support, and equipment support centers or departments (部门) apparently subordinate or subsumed within it.⁶⁹

- *Command and control center* (指挥控制中心). This center is responsible for supporting the joint operations commander's planning and command and control activities, and would provide coordination and guidance to other departments. It engages in comprehensive planning, firepower coordination, information operations, special operations. Most of the tasks enumerated earlier (e.g., grasping the situation, providing planning) are this center's responsibility.
- *Intelligence department* (情报部门). This is responsible for joint operations intelligence support. It coordinates intelligence activities, oversee intelligence collection and data management, and distribute any findings. In conjunction with the command and control center, it also organizes counter-recon activities and battle damage assessments.
- *Communications department* (通信部门). This department is responsible for supporting all communications associated with the joint operation, and helps formulate the plans and directives associated with communications support. It will also help guide and coordinate other communications activities of subordinate forces, including frequency and spectrum management. It will also coordinate with local officials and managers for employing civilian communications assets.

⁶⁸ Zhang Yuliang, Chief Editor, *The Science of Campaigns* (Beijing, PRC: National Defense University Publishing House, 2006), pp. 282-283.

⁶⁹ Yuan Wenxian, *Joint Operations Command Organ Work Teaching Materials* (Beijing, PRC: National Defense University Publishing House, 2008), pp. 208-211.

- *Military affairs mobilization department* (军务动员部门). This department is responsible for organizing military affairs, mobilization, and ground warfare management work. It will coordinate those offices associated with personnel, mobilization, and ground warfare. It is also responsible for providing supplementary military personnel, and will also coordinate with local governments for coordinating military transportation, material support, science and technology mobilization, and other interactions with local assets.
- *Political work department* (政治工作部门). This department is responsible for propaganda, legal affairs, mass work, and other political work matters. This includes planning, directing, and managing political work for the campaign, and overseeing political work in subordinate units. It also includes undertaking political warfare tasks, including psychological warfare, public opinion warfare, and legal warfare, as well as managing media outreach generally, and political mobilization.
- *Logistics support department* (后勤保障部门). This department is responsible for coordinating operational logistics and support. This includes keeping the command and control center apprised of the status of logistics, managing the flow of information between the main command post and rear area command posts, as well as logistical planning for the campaign.
- *Equipment support department* (装备保障部门). This department is responsible for ensuring that equipment support, which includes equipment maintenance as well as preserving equipment security, is coordinated across all participating forces.

Common across all these possible structures are a command or command and control center responsible for operational planning, coordination, and oversight of participating forces; a communications center or department; and an intelligence center or department. Several also have one or two departments responsible for aspects of support (保障).

Less consistent is the creation of an information operations center. Despite the emphasis on securing information dominance, it would appear from the available literature that there is not necessarily a dedicated center or department for information operations, or at least one that is separately enumerated. This is especially striking, given the extensive nature of the tasks associated with information operations.

In addition to the basic command post, there are also reserve command posts, rear area command posts, and, if necessary, forward or directional command posts.⁷⁰

- The reserve command post (预备指挥所) is generally established at the same time as the basic command post, in preparation of taking over, should the basic command post suffer attacks or otherwise be incapacitated. It is generally staffed by a deputy commander (副职指挥员), augmented by headquarters staff, and political, logistics, and equipment command organ personnel, although on a reduced scale. The reserve command post must have ready access to the campaign command and information systems, so as to maintain situational awareness and be able to step into the breach promptly, if necessary.

⁷⁰ Yuan Wenxian, *Joint Operations Command Organ Work Teaching Materials* (Beijing, PRC: National Defense University Publishing House, 2008), pp. 41, 207-213.

- A rear area command post (后方指挥所) is established to exercise consolidated command (统一指挥) over logistics and support activities. Its responsibilities include providing equipment support and security (装备保障), and coordinating rear area defense. It may be led by a deputy commander, or by the head of the logistics or equipment (armament) command organs. It may be supplemented by local support staff, which may include civilian government personnel. The rear area command post is likely to have several distinct centers and departments: a rear area command center, a logistics support department, an equipment support department, and a mobilization and support department.
- A forward, or directional, command post (前进(方向)指挥所) is established in order to supplement or improve command capacity along a likely line of enemy approach, or in advance of the main area of resistance. These are most likely to be created when large-scale, fully integrated joint campaigns (大规模一体化联合战役) are being undertaken, due to the complexities of both operations and command and control relationships. It is generally staffed by a deputy commander, and essential staff personnel.

Appendix 1: Key Leadership Terms¹

Leaders (领导), principal officers (主官), and command staff/leading cadre (首长): Various Chinese dictionaries translate these three terms as follows: *lingdao* is translated as leader(s), leadership, or leading; *shouzhang* is translated as leading cadre or leading officer; and *zhuguan* is translated as principal officer. For all practical purposes these three terms are synonymous, which can generically be called the command staff. Based on interviews with PLA officers, the PLA's command staff includes the commander, political commissar (PC), deputy commanders, deputy PCs, and directors of the Headquarters, Political, Logistics, and Equipment/Armament Departments. Furthermore, based on the interviews, the only real difference among *lingdao*, *shouzhang*, and *zhuguan*, is that *zhuguan* do not include the deputy commanders and deputy political commissars.

Commander (指挥员): *Zhihuiyuan* appears to be the generic term for commander compared to specific terms such as *silingyuan* (司令员) or *zhang* (长), as in division commander (师长). Based on how *zhihuiyuan* is used, it sometimes refers to a single person and other times it refers to the leaders (领导) and principal officers (主官) as a group, to include the commander, political commissar, deputy commanders, deputy political commissars, and directors of the four first-level departments (Headquarters, Political, Logistics, and Equipment). The *Air Force Dictionary* translates *zhihuiyuan* as commander and defines it as the leading cadre (领导干部) at each level who are responsible for combat/operations command (作战指挥). The commander's primary combat/operations responsibilities are organize intelligence and reconnaissance (情报侦察), issue decisions (定下决心), clarify missions/tasks (明确任务), formulate combat plans (制定作战计划), organize coordinated actions and support (组织协同动作和各种保障) [within the PLAAF and with other services and branches], inspect combat preparations situation (检查作战准备情况), and implement battlefield coordination and control (实施战场协调与控制)² According to the *PLA Military Dictionary*, which does not translate each term into English, *zhihuiyuan* is 1) The principal military [track] officer(s) (军事主官) at every level in the military; 2) The leading cadre (领导干部) at each level who is/are responsible for combat/operations command (作战指挥) or military functional work (军事行政工作); 3) The general term (泛称) for military cadre.³ It is also defined as the officer(s) who is/are responsible for all command of combat/operations at a particular level (对本级作战负责全部指挥负责的军官).⁴

Commanding Officer(s)/Cadre (指挥军官/指挥干部): According to various PLA publications, such as the *Military Cadre Work* volume of the *China Military Encyclopedia*, *zhihui jinguan* is translated as commanding officer and is defined as officers who have the grade of platoon leader

¹ The author would like to express his appreciation to Ken Allen who provided this appendix regarding the specific terminologies for commanders and command functions.

² Zhu Rongchang, ed. *Air Force Dictionary* (空军大辞典), (Shanghai: Shanghai Dictionary Press, September 1996), 71.

³ *Military Terminology of the Chinese People's Liberation Army (Complete Volume)* (中国人民解放军军语 (全本), (Beijing: Academy of Military Science Press, September 1997), 132..

⁴ Sun Ruling, *Basic Introduction to Combat/Operations Command* (作战指挥基础概论), (Beijing: National Defense University Press, May 2011), 101.

and above and are in one of the four PLA officer career tracks—military, political, logistics, and equipment—and are identified as military commanding officers (军事指挥军官), political commanding officers (政治智慧军官), logistics commanding officers (后勤指挥军官), and equipment commanding officers (装备指挥军官). These tracks are discussed later in Part 1. Commanding officers are categorized by their career track, grade, missions/tasks, and by their service and branch.⁵

⁵ “Commanding Officer” (指挥军官) in Xu Yaoyuan, ed., *Military Cadre Work* (军队干部工作), 84, in *China Military Encyclopedia* (Second Edition), (Beijing: China Encyclopedia Press, November 2006). Su Shubo, Yang Qi, Yu Zhiyong, and Lin Cheng, eds., *Military Cadre Work Handbook* (军队干部工作手册), (Beijing: National Defense University Press, May 2011), 35-36.